

=> "reactive cyclodextrin"  
329136 "REACTIVE"  
164 "REACTIVES"  
329250 "REACTIVE"  
("REACTIVE" OR "REACTIVES")  
36044 "CYCLODEXTRIN"  
10425 "CYCLODEXTRINS"  
37024 "CYCLODEXTRIN"  
("CYCLODEXTRIN" OR "CYCLODEXTRINS")  
L35 17 "REACTIVE CYCLODEXTRIN"  
("REACTIVE" (W) "CYCLODEXTRIN")

=> d 135 1-17 ibib abs kwic

L35 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:66956 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 147:345515  
TITLE: Investigation into reactions of starch with  
monochlorotriazinyl- $\beta$ -cyclodextrin and  
application of their products in textile sizing  
AUTHOR(S): Hebeish, A.; Higazy, A.; El-Shafei, A.; Sharaf, Samar  
CORPORATE SOURCE: Textile Research Division, National Research Center,  
Dokki, Cairo, Egypt  
SOURCE: Polymer-Plastics Technology and Engineering (2006),  
45(10), 1163-1173  
CODEN: PPTEC7; ISSN: 0360-2559  
PUBLISHER: Taylor & Francis, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB This article presents a study on the chemical modification of starch and hydrolyzed starches through their reactions with reactive cyclodextrin (RCD). Monochlorotriazinyl- $\beta$ -cyclodextrin was investigated under a variety of conditions. The results obtained signify that the reaction was favored in an alkaline media rather than an acidic media, and in shorter rather than larger liquor ratios. Maximization of the reaction could also be achieved at 40°C for 60 min. Of the several alkaline catalysts used, NaOH proved to be the best when used at a concentration of 10 g/l. The reaction of starch and hydrolyzed starches with

RCD was determined using a concentration of the latter. The apparent viscosity of the

resulting polymeric products depends upon both the extent of reaction, expressed as a nitrogen percentage, and the degree of acid hydrolysis prior to the modification. Evidence for involvement of starch and RCD via chemical bonding was obtained through FT-IR anal. Furthermore, the newly synthesized starch-based polymeric products were applied to a light cotton fabric and further evaluation of the sized materials was conducted by monitoring the size add-on, size removal, and strength properties of the fabric was conducted.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB This article presents a study on the chemical modification of starch and hydrolyzed starches through their reactions with reactive cyclodextrin (RCD). Monochlorotriazinyl- $\beta$ -cyclodextrin was investigated under a variety of conditions. The results obtained signify that the reaction was favored in an. . . .

L35 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:896582 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 145:439807  
TITLE: Technological evaluation of reactive cyclodextrin in cotton printing with reactive and natural dyes  
AUTHOR(S): Hebeish, A. A.; Ragheb, A. A.; Nassar, S. H.; Allam, E. E.; Abd El Thalouth, J. I.  
CORPORATE SOURCE: Textile Research Division, National Research Centre, Cairo, Egypt  
SOURCE: Journal of Applied Polymer Science (2006), 102(1), 338-347  
CODEN: JAPNAB; ISSN: 0021-8995  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Chemical modification of cotton fabrics with reactive cyclodextrin (R-CD) at different concns. was carried out to enhance the printability. The extent of modification was expressed as %N. Reactive and natural dyes were used to print cotton fabrics before and after modification. Printing pastes were applied immediately after preparation or after 24 h of storage. Printing fixation was performed through either steaming or thermal treatment. The effect of the incorporation of R-CD in the printing paste of unmodified cotton was also studied. The extent of modification increased with increasing R-CD concentration and so did the color strength (K/S) of the printed sample regardless of the dye used. The K/S of the R-CD modified cottons is higher than that of the corresponding unmodified samples regardless of the method of fixation or the time elapsed before printing. The incorporation of R-CD in the printing pastes of reactive dyes, namely, Cibacron Brown 6R-P or Remazol Brilliant Red GG, had adverse effects, due to (a) increasing viscosity of the paste and/or (b) interaction of the reactive dye with R-CD hydroxyl groups. The opposite held true when a natural dye was used. The incorporation of R-CD in the printing pastes had no effect on the rheol. of pastes or on overall fastness. Incorporation of R-CD was accompanied by a remarkable increase in the magnitude of the apparent viscosity.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
TI Technological evaluation of reactive cyclodextrin in cotton printing with reactive and natural dyes  
AB Chemical modification of cotton fabrics with reactive cyclodextrin (R-CD) at different concns. was carried out to enhance the printability. The extent of modification was expressed as %N. Reactive. . .

L35 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:88213 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 145:168334  
TITLE: Chemically Reactive Nanoparticle for Ultra-low k Applications  
AUTHOR(S): Shin, Jae Jin; Park, Se Jung; Min, Sung-Kyu; Rhee, Hee-Woo; Moon, Bongjin; Yoon, Do Young  
CORPORATE SOURCE: Interdisciplinary Program of Integrated Biotechnology, Department of Chemical & Biomolecular Engineering, Sogang University, Seoul, S. Korea  
SOURCE: Molecular Crystals and Liquid Crystals (2006), 445, 167-175  
CODEN: MCLCD8; ISSN: 1542-1406  
PUBLISHER: Taylor & Francis, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The introduction of nanometer-sized pores into low dielec. (k) materials is the most promising approach in producing ultra-low dielec. constant materials ( $k < 2.2$ ). However, since the increased pores in low-k films lowered the mech. strengths, it is important to optimize the mech. properties by controlling the pore morphologies such as pore size, its size distribution and interconnectivity. We prepared nanoporous low-k films by using a chemical reactive cyclodextrin (TESCD) as a porogen to acquire chemical bonding with the low-k matrix, poly(methyltrimethoxysilane-co-bistriethoxysilylthane). The porosity of nanoporous low-k films linearly increased with porogen loading, which indicated great compatibility between porogen and matrix, and its dielec. constant was as low as 2.2 (from 3.0) at 40% of porogen loading. Nanoindentor was applied to the nanoporous low-k films prepared by either TESCD or poly(caprolactone) porogen to measure elastic modulus and surface hardness. TESCD porogen resulted in much less reduction in elastic modulus and surface hardness from .apprx.16 GPa to .apprx.7.3 and from .apprx.2.7 GPa to .apprx.1.0 at 27% of porosity, resp., while PCL porogen brought about the dramatic decrease in both mech. properties at the corresponding porosity. This result may be due to the chemical bonding between TESCD and the matrix during its crosslinking reaction.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . . pore morphologies such as pore size, its size distribution and interconnectivity. We prepared nanoporous low-k films by using a chemical reactive cyclodextrin (TESCD) as a porogen to acquire chemical bonding with the low-k matrix, poly(methyltrimethoxysilane-co-bistriethoxysilylthane). The porosity of nanoporous low-k films linearly. . . .

L35 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:1255768 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 144:11146  
 TITLE: Cyclodextrins derivatized with proteins for cosmetics  
 INVENTOR(S): Barnes, Alun Robert; Parfrey, Jill Elizabeth; Comber, Robert Neil  
 PATENT ASSIGNEE(S): Croda International PLC, UK  
 SOURCE: Brit. UK Pat. Appl., 46 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2414479	A	20051130	GB 2004-11872	20040527
WO 2005116085	A1	20051208	WO 2005-GB2123	20050527
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

GB 2004-11872

A 20040527

OTHER SOURCE(S): MARPAT 144:11146

AB A protein-cyclodextrin derivative obtained by the reaction of a reactive cyclodextrin with a protein is claimed. Preferably the protein is a hydrolyzed protein, more preferably a vegetable protein from potato, wheat or soya. The reactive cyclodextrin has an organo-functional group such as a chloro-triazinyl, epoxide, acyl halide, sulfonyl halide, anhydride or aldehyde group. Uses of the protein-cyclodextrin derivative in cosmetic preps., for hair care, skin care, fragrance retention, malodor control are claimed. Thus, a formulation contained 1% hydrolyzed protein cyclodextrin derivative

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A protein-cyclodextrin derivative obtained by the reaction of a reactive cyclodextrin with a protein is claimed. Preferably the protein is a hydrolyzed protein, more preferably a vegetable protein from potato, wheat or soya. The reactive cyclodextrin has an organo-functional group such as a chloro-triazinyl, epoxide, acyl halide, sulfonyl halide, anhydride or aldehyde group. Uses of the. . .

L35 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:903121 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 143:258358

TITLE: A low-dielectric films prepared from nanoparticle cyclodextrin derivatives as pore-forming templates

INVENTOR(S): Rhee, Hee-Woo; Yoon, Do Young; Char, Kook Heon; Lee, Jin-Kyu; Moon, Bongjin; Min, Sung-Kyu; Park, Se Jung; Shin, Jae-Jin

PATENT ASSIGNEE(S): Sogang University Corporation, S. Korea

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005078743	A1	20050825	WO 2004-KR3287	20041214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2005082383	A	20050823	KR 2004-10827	20040218
JP 2007523246	T	20070816	JP 2006-554015	20041214
US 2007128879	A1	20070607	US 2006-588358	20060803
PRIORITY APPLN. INFO.:			KR 2004-10827	A 20040218
			WO 2004-KR3287	W 20041214

OTHER SOURCE(S): MARPAT 143:258358

AB The invention relates to a reactive nanoparticle cyclodextrin derivative

useful as a porogen and a low dielec. matrix, with excellent mech. properties and uniformly distributed nanopores, manufactured by sol-gel reaction of the above reactive cyclodextrin. Furthermore, the invention also relates to an ultralow dielec. film, with uniformly distributed nanopores, a relatively high porosity of 51%, and a relatively low dielec. constant of 1.6, manufactured by thin-filming of the conventional organic or inorg. silicate precursor by using the above reactive cyclodextrin as a porogen.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . and a low dielec. matrix, with excellent mech. properties and uniformly distributed nanopores, manufactured by sol-gel reaction of the above reactive cyclodextrin. Furthermore, the invention also relates to an ultralow dielec. film, with uniformly distributed nanopores, a relatively high porosity of 51%,. . . low dielec. constant of 1.6, manufactured by thin-filming of the conventional organic or inorg. silicate precursor by using the above reactive cyclodextrin as a porogen.

L35 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:864211 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 143:27989

TITLE: Improving the durable press performance of citric acid finished cotton fabrics using reactive cyclodextrin

AUTHOR(S): El-Hilw, Z. H.; Hebeish, A.

CORPORATE SOURCE: Textile Research Division, National Research Centre, Cairo, Egypt

SOURCE: Egyptian Journal of Textile and Polymer Sciences and Technology (2003), Volume Date 2002, 6, 91-111  
CODEN: EJTPAB; ISSN: 1110-600X

PUBLISHER: National Information and Documentation Centre

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Monochlorotriazinyl derivative of B-cyclodextrin, simply termed reactive cyclodextrin (RCD), was used along with citric acid (CA) and sodium hypophosphite (SHP) with a view to develop effective formaldehyde free durable press (DP) finishing system for cotton fabrics. While, CA acts as the crosslinking agent, SHP serves as the catalyst for esterification and crosslinking of cotton with CA. The finishing treatment was carried out as per the conventional pad-dry-cure method. The finished samples were monitored for nitrogen content, carboxyl content, wrinkle recovery angle (WRA), DP rating, strength properties and whiteness index. Presence of significant amount of nitrogen in the finished fabric, after being thoroughly washed as taken to indicate the involvement of RCD in reactions occurring between CA and cotton cellulose. Similarly, determination of significant amount of carboxyl group's calls for esterification of cotton cellulose with CA via single ended reactions. On the other hand, the significant improvement in WRA and DP rating along with the substantial decrease in strength properties was taken as evidence for crosslinking of cotton cellulose with involvement of RCD in such crosslinking reactions. It should be noted, however, that the values of WRA, DP rating and strength properties of the finished fabrics were much higher in presence than in absence of RCD. The latter, seems to protect then cotton cellulose from mol. degradation by CA hydrolysis and/or from rigidity conferred by crosslinking. The work was further extended to examine the effects on finished fabric performance of polyethylene glycol concentration, partial replacement of CA with low formaldehyde N-methylol

finishing agent, during temperature and time.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Improving the durable press performance of citric acid finished cotton fabrics using reactive cyclodextrin

AB Monochlorotriazinyl derivative of B-cyclodextrin, simply termed reactive cyclodextrin (RCD), was used along with citric acid (CA) and sodium hypophosphite (SHP) with a view to develop effective formaldehyde free. . .

ST durable press finishing cotton fabric citric acid reactive cyclodextrin

IT Textiles  
(cotton; improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT Durable press finishing  
Elongation at break  
Fabric finishing agents  
Tensile strength  
(improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT Aminoplasts  
Polyoxyalkylenes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT Wetting agents  
(nonionic; improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT 9003-08-1, Lyofix CHN  
RL: TEM (Technical or engineered material use); USES (Uses)  
(finishing agent; improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT 68-04-2, Trisodium citrate 77-92-9, Citric acid, uses 10039-56-2, Sodium hypophosphite monohydrate 782442-37-9, Monochlorotriazinyl- $\beta$ -cyclodextrin  
RL: CAT (Catalyst use); USES (Uses)  
(improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

IT 25322-68-3, PEG 75432-60-9, Hostapal  
RL: TEM (Technical or engineered material use); USES (Uses)  
(wetting agent; improving durable press performance of citric acid-finished cotton fabrics using reactive cyclodextrin and other catalysts and reagents)

L35 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:177923 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 140:237081  
TITLE: Cyclodextrin group-containing organosilicon compounds  
INVENTOR(S): Kaluza, Gloria; Habereder, Peter; Ochs, Christian  
PATENT ASSIGNEE(S): Wacker-Chemie G.m.b.H., Germany  
SOURCE: Ger. Offen., 39 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10238818	A1	20040304	DE 2002-10238818	20020823
WO 2004018547	A1	20040304	WO 2003-EP9053	20030814
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003255443	A1	20040311	AU 2003-255443	20030814
EP 1530607	A1	20050518	EP 2003-792323	20030814
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1678665	A	20051005	CN 2003-819983	20030814
JP 2005536653	T	20051202	JP 2004-530153	20030814
EP 1865016	A1	20071212	EP 2007-114832	20030814
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR				
US 2006009592	A1	20060112	US 2005-523909	20050208
US 7235186	B2	20070626		

PRIORITY APPLN. INFO.:

DE 2002-10238818	A 20020823
EP 2003-792323	A3 20030814
WO 2003-EP9053	W 20030814

AB Cyclodextrin group-containing silanes and siloxanes, useful for finishing of textiles with agents that absorb perfumes, are manufactured by reaction of cyclodextrin containing halotriazine groups, epoxide groups, amine groups, vinylsulfonyl groups, (meth)acrylic groups with silanes or siloxanes with groups reactive with these groups. Crosslinkable compns., useful for finishing textiles, may be formed from the reactive silanes or siloxanes, the reactive cyclodextrin derivs., and, optionally, a crosslinker. A typical cyclodextrin group-containing siloxane was manufactured by

dispersing 100 g Me<sub>3</sub>SiO(Me<sub>2</sub>SiO)<sub>145</sub>[MeSiO[(CH<sub>2</sub>)NH<sub>2</sub>]]SiMe<sub>3</sub> (I) with 3.4% Cavasol W7MCT (chlorohydroxytriazine-containing cyclodextrin sodium salt) (based on I) in 1.2-fold amount of water and mixing 90-120 min causing the temperature to rise to 50-80°.

AB . . . reactive with these groups. Crosslinkable compns., useful for finishing textiles, may be formed from the reactive silanes or siloxanes, the reactive cyclodextrin derivs., and, optionally, a crosslinker. A typical cyclodextrin group-containing siloxane was manufactured by

dispersing 100 g Me<sub>3</sub>SiO(Me<sub>2</sub>SiO)<sub>145</sub>[MeSiO[(CH<sub>2</sub>)NH<sub>2</sub>]]SiMe<sub>3</sub> (I) with 3.4% . . .

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L35 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:892825 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 139:366314

TITLE: Aqueous liquid compositions of reactive cyclodextrin derivatives and a finishing process using the said composition

INVENTOR(S): Kulke, Torsten  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003093325	A1	20031113	WO 2003-EP4261	20030424
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003233053	A1	20031117	AU 2003-233053	20030424
EP 1499644	A1	20050126	EP 2003-727348	20030424
EP 1499644	B1	20070103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009622	A	20050209	BR 2003-9622	20030424
CN 1649904	A	20050803	CN 2003-809575	20030424
JP 2005533190	T	20051104	JP 2004-501464	20030424
AT 350401	T	20070115	AT 2003-727348	20030424
ES 2278162	T3	20070801	ES 2003-727348	20030424
MX 2004PA10085	A	20041213	MX 2004-PA10085	20041014
US 2005192435	A1	20050901	US 2004-512795	20041026
IN 2004CN02649	A	20070720	IN 2004-CN2649	20041124
PRIORITY APPLN. INFO.:			EP 2002-405351	A 20020429
			WO 2003-EP4261	W 20030424

AB An aqueous liquid composition comprising a reactive cyclodextrin derivative and at least one component selected from the group consisting of water-miscible organic solvent and  $\epsilon$ -caprolactam is excellent in storage stability and useful in a finishing process for the treatment of suitable substrates, such as fiber materials. Thus, mixing 99 parts a solution of 200 parts Cavasol W 7MCT (reactive cyclodextrin compound) in 480 parts water with Na citrate dihydrate 99, citric acid (as buffer) 1 and then with  $\epsilon$ -caprolactam 180 and i-PrOH 40 parts gave a clear solution with good storage stability. The solution is useful for supporting beneficial agents such as antimicrobial agents on fabrics.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Aqueous liquid compositions of reactive cyclodextrin derivatives and a finishing process using the said composition  
 AB An aqueous liquid composition comprising a reactive cyclodextrin derivative and at least one component selected from the group consisting of water-miscible organic solvent and  $\epsilon$ -caprolactam is excellent in. . . treatment of suitable substrates, such as fiber materials. Thus, mixing 99 parts a solution of 200 parts Cavasol W 7MCT (reactive cyclodextrin compound) in 480 parts water with Na citrate dihydrate 99, citric acid (as buffer) 1 and then with  $\epsilon$ -caprolactam 180. .

ST reactive cyclodextrin caprolactam fiber finishing  
comprn storage stability

IT Antimicrobial agents  
Fabric finishing  
(aqueous liquid compns. of reactive cyclodextrin derivs.  
and a finishing process using the said composition)

IT 3380-34-5, 5-Chloro-2-(2,4-dichlorophenoxy)phenol  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(antimicrobial agent; aqueous liquid compns. of reactive cyclodextrin derivs. and a finishing process using the said composition)

IT 105-60-2,  $\epsilon$ -Caprolactam, uses 185464-55-5, Cavasol W 7MCT  
RL: TEM (Technical or engineered material use); USES (Uses)  
(aqueous liquid compns. of reactive cyclodextrin derivs.  
and a finishing process using the said composition)

IT 53037-34-6, Knittex FEL 282088-37-3, Knittex KAT-MO  
RL: TEM (Technical or engineered material use); USES (Uses)  
(textile treatment agent; aqueous liquid compns. of reactive cyclodextrin derivs. and a finishing process using the said composition)

L35 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:397059 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 138:386826

TITLE: Method for producing reactive cyclodextrins, textile material provided with  
same, and use of said cyclodextrin derivatives

INVENTOR(S): Schmidt, Andreas; Buschmann, Hans-Juergen; Knittel,  
Dierk; Schollmeyer, Eckhard

PATENT ASSIGNEE(S): Deutsches Textilforschungs Zentrum, Germany

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003042449	A1	20030522	WO 2002-EP12716	20021114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002363591	A1	20030526	AU 2002-363591	20021114
EP 1448837	A1	20040825	EP 2002-803020	20021114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1585843	A	20050223	CN 2002-822323	20021114
BR 2003004910	A	20050517	BR 2003-4910	20030829
IN 2004CN01319	A	20070727	IN 2004-CN1319	20040614
US 2005080254	A1	20050414	US 2004-495517	20041102

PRIORITY APPLN. INFO.:

DE 2001-10155781 A 20011114  
WO 2002-EP12716 W 20021114

OTHER SOURCE(S):

MARPAT 138:386826

AB Said method consists in reacting cyclodextrin with a bifunctional alkyl compound of formula X(CH<sub>2</sub>)<sub>n</sub>Y, wherein: X represents a group reacting with cyclodextrin, n is an integer between 2 and 20, and Y represents a reactive group capable of reacting with cellulosic or polyamide fabrics or a group reacting with a group Z on a compound having a reactive group capable of reacting with cellulosic or polyamide fabrics. Said method comprises optionally an addnl. step, wherein, insofar as Y represents a group reacting with a group Z, the product obtained reacts with a compound having Z and a reactive group to form reactive cyclodextrin. A typical reactive cyclodextrin was manufactured by reaction of 2.06 g 1-amino-3-chloropropane hydrochloride with 5 g  $\beta$ -cyclodextrin 6 h at 100° in water in the presence of NaOH and reaction of 5 g resulting intermediate with 4.41 g 2,3-dibromopropionyl chloride 5 h at 50° in dioxane.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Method for producing reactive cyclodextrins, textile material provided with same, and use of said cyclodextrin derivatives

AB . . . reacting with a group Z, the product obtained reacts with a compound having Z and a reactive group to form reactive cyclodextrin. A typical reactive cyclodextrin was manufactured by reaction of 2.06 g 1-amino-3-chloropropane hydrochloride with 5 g  $\beta$ -cyclodextrin 6 h at 100° in water in. . .

ST reactive cyclodextrin finishing agent cellulosic polyamide textile; bromo cyclodextrin manuf finishing agent cellulosic polyamide textile

L35 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:220889 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 136:248990

TITLE: Process for treating fiber materials with aqueous compositions containing fiber-reactive cyclodextrin derivatives and antimicrobial agents

INVENTOR(S): Mao, Jianwen; Stehlin, Albert; Ochs, Dietmar; Eliu, Victor Paul

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 33 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022941	A1	20020321	WO 2001-EP10283	20010906
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

AU 2002013887	A	20020326	AU 2002-13887	20010906
BR 2001013841	A	20030603	BR 2001-13841	20010906
EP 1319102	A1	20030618	EP 2001-982254	20010906
EP 1319102	B1	20051026		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 307920	T	20051115	AT 2001-982254	20010906
ES 2250495	T3	20060416	ES 2001-982254	20010906
US 2005080044	A1	20050414	US 2003-380026	20030310
US 7105500	B2	20060912		
IN 2003CN00506	A	20050415	IN 2003-CN506	20030409
PRIORITY APPLN. INFO.:				
EP 2000-810825 A 20000914				
EP 2001-810424 A 20010430				
WO 2001-EP10283 W 20010906				

OTHER SOURCE(S): MARPAT 136:248990

AB The process for antimicrobial treatment of fiber materials comprises applying to fiber materials (e.g., cotton fabric) with inclusion complexes of fiber-reactive cyclodextrin derivs. (e.g., Cavasol W 7MCT) and antimicrobial agents (e.g., 5-Chloro-2-(4-chlorophenoxy)phenol) selected from (a) halogeno-o-hydroxydiphenyl compds. or non-halogenated hydroxydiphenyl ether compds., (b) phenol derivs., (c) benzyl alcs., (d) chlorhexidine and its derivs., (e) C12-14 alkylbetaines and C8-C18 fatty acid Amidoalkylbetaines, (f) amphoteric surfactants, (g) trihalocarbanilides, (h) quaternary and polyquaternary compds. and (i) thiazole compds.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Process for treating fiber materials with aqueous compositions containing fiber-reactive cyclodextrin derivatives and antimicrobial agents

AB The process for antimicrobial treatment of fiber materials comprises applying to fiber materials (e.g., cotton fabric) with inclusion complexes of fiber-reactive cyclodextrin derivs. (e.g., Cavasol W 7MCT) and antimicrobial agents (e.g., 5-Chloro-2-(4-chlorophenoxy)phenol) selected from (a) halogeno-o-hydroxydiphenyl compds. or non-halogenated hydroxydiphenyl ether compds., . . .

IT Surfactants  
(amphoteric, antimicrobial agents; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Quaternary ammonium compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(antimicrobial agents; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Fibers  
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(cellulosic; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Textiles  
(cotton; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Quaternary ammonium compounds, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polymers, antimicrobial agents; process for treating fiber materials

with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Antimicrobial agents  
Coating materials  
Cotton fibers  
(process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT Natural fibers  
Polyamide fibers, processes  
RL: MSC (Miscellaneous); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT 3380-30-1 3380-34-5 404834-79-3  
RL: TEM (Technical or engineered material use); USES (Uses)  
(antimicrobial agent; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT 55-56-1D, Chlorohexidine, derivs. 100-51-6D, Benzyl alcohol, derivs.  
101-84-8D, Diphenyl ether, (non)halogenated hydroxy derivs. 102-07-8D, Carbanilide, Trihalo derivs. 107-43-7D, Betaine, alkyl or fatty acid amidoalkyl derivs. 108-95-2D, Phenol, derivs. 288-47-1D, Thiazole, derivs.  
RL: TEM (Technical or engineered material use); USES (Uses)  
(antimicrobial agents; process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

IT 108-77-0, Cyanuric chloride 7585-39-9,  $\beta$ -Cyclodextrin  
12619-70-4D, Cyclodextrin, derivs. 185464-55-5, Cavasol W 7MCT  
RL: TEM (Technical or engineered material use); USES (Uses)  
(process for treating fiber materials with aqueous compns. containing fiber-reactive cyclodextrin derivs. and antimicrobial agents)

L35 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:344234 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 135:93852  
TITLE: Chemical finishing of cotton using reactive cyclodextrin  
AUTHOR(S): Hebeish, A.; El-Hilw, Z. H.  
CORPORATE SOURCE: Textile Research Division, National Research Centre, Cairo, Egypt  
SOURCE: Coloration Technology (2001), 117(2), 104-110  
CODEN: CTOEAZ; ISSN: 1472-3581  
PUBLISHER: Society of Dyers and Colourists  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Chemical modification of cotton cellulose in the fabric form was investigated through reaction with monochlorotriazinyl- $\beta$ -cyclodextrin. The reaction involves single ended substitution and crosslinking investigations into the factors affecting these reactions occurring in the presence of an N-methylol compound finishing agent (Knittex FC) and/or a reactive dye (Cibacron Brilliant Red 4G-E) were undertaken. The treatment was carried out as per the conventional pad-thermofixation method.  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
TI Chemical finishing of cotton using reactive cyclodextrin

IT Textiles  
(cotton; effect of pad-thermofixation conditions on chemical finishing of cotton using reactive cyclodextrin in absence and presence of N-methylol compound resin and/or reactive dye)

IT Durable press finishing  
Dyeing  
(effect of pad-thermofixation conditions on chemical finishing of cotton using reactive cyclodextrin in absence and presence of N-methylol compound resin and/or reactive dye)

IT 50-00-0D, Formaldehyde, polymer with dihydroxyethyleneurea alkyl derivative and melamine, uses 108-78-1D, Melamine, polymer with dihydroxyethyleneurea alkyl derivative and formaldehyde 3720-97-6D, Dihydroxyethyleneurea, alkyl derivs., polymer with formaldehyde and formaldehyde 349498-78-8, Knittex FC  
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(durable-press finishing agent; effect of pad-thermofixation conditions on chemical finishing of cotton using reactive cyclodextrin in absence and presence of N-methylol compound resin and/or reactive dye)

IT 7585-39-9D,  $\beta$ -Cyclodextrin, chlorotriazinyl group derivs.  
61951-82-4, Cibacron Brilliant Red 4G-E 185464-55-5, BETA W 7MCT  
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
(effect of pad-thermofixation conditions on chemical finishing of cotton using reactive cyclodextrin in absence and presence of N-methylol compound resin and/or reactive dye)

L35 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:323740 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 135:243649  
TITLE: Covalently bound cyclodextrin: A new functional finish for cellulosics  
AUTHOR(S): Hauser, Peter J.; Niu, Jianshuo  
CORPORATE SOURCE: North Carolina State University, Raleigh, NC, USA  
SOURCE: Proceedings of the Annual International Conference & Exhibition of the American Association of Textile Chemists and Colorists: The New Millennium of Textiles, Winston-Salem, NC, United States, Sept. 17-20, 2000 (2000), 235-241. American Association of Textile Chemists and Colorists: Research Triangle Park, N. C.  
CODEN: 69BBST  
DOCUMENT TYPE: Conference; (computer optical disk)  
LANGUAGE: English  
AB It has been demonstrated that 3-CD-MCT (a reactive cyclodextrin derivative having a monochlorotriazinyl group) can be fixed to cotton fibers in good yields with a com. feasible process. Further research is required to determine the exact structure of 13-CD-MCT modified cotton and to investigate practical applications of the modified fiber.  
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
AB It has been demonstrated that 3-CD-MCT (a reactive cyclodextrin derivative having a monochlorotriazinyl group) can be fixed to cotton fibers in good yields with a com. feasible process. Further. . .

L35 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:865108 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 134:44006  
 TITLE: Hydrophilic composite membranes for drying of organic solvents  
 INVENTOR(S): Ebert, Katrin; Fritsch, Detlev; Stange, Olaf;  
 Wenzlaff, Axel  
 PATENT ASSIGNEE(S): Gkss-Forschungszentrum Geesthacht G.m.b.H., Germany  
 SOURCE: Ger. Offen., 4 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19925475	A1	20001207	DE 1999-19925475	19990603
DE 19925475	B4	20041230		
WO 2000074828	A1	20001214	WO 2000-DE1784	20000602
	W: US			
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
EP 1194218	A1	20020410	EP 2000-943671	20000602
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:			DE 1999-19925475	A 19990603
			WO 2000-DE1784	W 20000602

AB A composite membrane is described comprising a selective separation layer (e.g., a crosslinked polyvinyl alc.) on a porous membrane support. The polyvinyl alc. is crosslinked with a reactive cyclodextrin. The membrane is thermally stable and is suitable for dewatering of organic solvents, e.g., by vapor permeation or pervaporation. The membranes can be welded together, and used for the preparation of membrane modules.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . selective separation layer (e.g., a crosslinked polyvinyl alc.) on a porous membrane support. The polyvinyl alc. is crosslinked with a reactive cyclodextrin. The membrane is thermally stable and is suitable for dewatering of organic solvents, e.g., by vapor permeation or pervaporation. The. . . .

L35 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:56461 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 132:295055  
 TITLE: Textile finishing with MCT- $\beta$ -cyclodextrin  
 AUTHOR(S): Moldenhauer, J.-P.; Reuscher, H.  
 CORPORATE SOURCE: Wacker-Chemie GmbH, Burghausen, D-84489, Germany  
 SOURCE: Proceedings of the International Symposium on Cyclodextrins, 9th, Santiago de Compostela, Spain, May 31-June 3, 1998 (1999), Meeting Date 1998, 161-165.  
 Editor(s): Labandeira, J. J. Torres; Vila-Jato, J. L.  
 Kluwer Academic Publishers: Dordrecht, Neth.  
 CODEN: 68NHAE

DOCUMENT TYPE: Conference  
 LANGUAGE: English

AB Monochlorotriazinyl- $\beta$ -cyclodextrin (BETA W7 MCT) is a reactive cyclodextrin derivative that can be covalently fixed to nucleophilic substrates by a condensation reaction. This new

type of surface modification means a permanent transfer of cyclodextrin properties to the treated materials. An important application field of BETA W7 MCT is the textile finishing process. Analogous to reactive dyes, the MCT-cyclodextrin can be fixed to the fabric by well known methods and with common equipment. Results with cotton fabrics are reported.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Monochlorotriazinyl- $\beta$ -cyclodextrin (BETA W7 MCT) is a reactive cyclodextrin derivative that can be covalently fixed to nucleophilic substrates by a condensation reaction. This new type of surface modification means. . .

L35 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:492116 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 131:243476

TITLE: Evidence for cyclodextrin dioxiranes. Part 2.

Catalytic and enantioselective properties of cyclodextrin dioxiranes formed from keto-derivatized hydroxypropyl-cyclodextrins

AUTHOR(S): Deary, Michael E.; Davies, D. Martin

CORPORATE SOURCE: Department of Chemical and Life Sciences, University of Northumbria at Newcastle, Newcastle Upon Tyne, NE1 8ST, UK

SOURCE: Carbohydrate Research (1999), 317(1-4), 10-18

CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Following our recent study of the bromine oxidation, at neutral pH, of  $\alpha$ -cyclodextrin,  $\beta$ -cyclodextrin, O-methylated  $\beta$ -cyclodextrins and sucrose, which yield ketone and carboxylic acid-containing materials in the oxidation products (M.E. Deary, D.M. Davies, Carbohydr. Res., 309 (1998) 17), we have extended the work to hydroxypropyl- $\alpha$ -cyclodextrin and hydroxypropyl- $\beta$ -cyclodextrin.

$^{13}C$  NMR anal. confirms the presence of ketone groups ( $\delta$  207) in the oxidation products of both of these compds. The continued ability of the products of these oxidns. to complex p-nitrophenol demonstrates that ring integrity is maintained. The ketone-containing products are capable of catalyzing the peroxomonosulfate (PMS) oxidation of a range of substrates including aryl alkyl sulfoxides, pyridine, 4-bromopyridine, aniline, 4-aminobenzoate, 4-bromoaniline and several amino acids, most probably by the formation of a more reactive cyclodextrin-dioxirane intermediate. A small degree of enantioselectivity is observed in the oxidation of (R)-(+)- and (S)-(-)-Me p-tolyl sulfoxide by PMS in the presence of the keto derivative of hydroxypropyl- $\alpha$ -cyclodextrin, though not for the  $\beta$  analog.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . aryl alkyl sulfoxides, pyridine, 4-bromopyridine, aniline, 4-aminobenzoate, 4-bromoaniline and several amino acids, most probably by the formation of a more reactive cyclodextrin-dioxirane intermediate. A small degree of enantioselectivity is observed in the oxidation of (R)-(+)- and (S)-(-)-Me p-tolyl sulfoxide by PMS in. . .

L35 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:460419 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 129:217846

TITLE: Formaldehyde-free finishing of cotton fabrics with reactive a cyclodextrin derivative

AUTHOR(S): Edit, Remi; Szilvia, Perdi; Gyorgy, Lepenye; Istvan, Rusznak; Andras, Vig

CORPORATE SOURCE: Budapesti Muszaki Egyetem Szerves Kemial Technologiai Tanszek, Hung.

SOURCE: Magyar Textiltechnika (1998), 51(1), 19-22

CODEN: MGTXAY; ISSN: 0025-0309

PUBLISHER: Textilipari Muszaki es Tudomanyos Egyesulet

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB Cotton fabrics were treated with baths containing 10-30 ppm  $\beta$ -cyclodextrin monochlorotriazine derivs. (I) and baths containing 100 ppm HCHO-forming finishing agents, and the shrinkage, creasing, strength loss, and yellowing were tested. The shrinkage and creasing values were what was expected, but the strength loss decreased from 20-60% for the fabrics finished with the HCHO-forming agents to <10% for fabrics finished with I, and the yellowing decreased from >80% to <70%, resp.

IT Textiles  
(cotton; formaldehyde-free finishing of cotton fabrics with reactive cyclodextrin derivs.)

IT Durable press finishing  
(formaldehyde-free finishing of cotton fabrics with reactive cyclodextrin derivs.)

IT 290-87-9D, 1,3,5-Triazine, cyclodextrin derivs. 7585-39-9D,  
 $\beta$ -Cyclodextrin, monochlorosodiooxytriazine derivative 211688-15-2,  
75B001 211688-33-4, MCT 016  
RL: NUU (Other use, unclassified); USES (Uses)  
(formaldehyde-free finishing of cotton fabrics with reactive cyclodextrin derivs.)

L35 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:27177 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 126:76399

TITLE: BETA W7 MCT -- New ways in surface modification

AUTHOR(S): Reuscher, H.; Hirsenkorn, R.

CORPORATE SOURCE: Wacker-Chemie GmbH, Munich, D-81737, Germany

SOURCE: Journal of Inclusion Phenomena and Molecular Recognition in Chemistry (1996), 25(1-3), 191-196

CODEN: JIMCEN; ISSN: 0923-0750

PUBLISHER: Kluwer

DOCUMENT TYPE: Journal

LANGUAGE: English

AB BETA W7 MCT (I) is the first reactive cyclodextrin derivative manufactured on an industrial scale. I has a monochlorotriazinyl group as a reactive anchor well known from many reactive dyes. I is able to form stable covalent bonds with nucleophilic groups and can be easily prepared in water in an effective 1-pot synthesis from cyanuric chloride and  $\beta$ -cyclodextrin in a yield of approx. 90% based on the triazinyl group. The optimized degree of substitution of d.s. = 0.4 per anhydroglucose ensures a good complexation capacity, even when I is fixed to surfaces like textiles. I containing 2-3 reactive groups in the ring can be used as a building block for new cyclodextrin derivs., as a crosslinking agent, or as an excellent material for surface modification.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB BETA W7 MCT (I) is the first reactive cyclodextrin derivative manufactured on an industrial scale. I has a monochlorotriazinyl group as a reactive anchor well known from many reactive. . .

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=> cyclodextrin and cyanuric  
36044 CYCLODEXTRIN  
10425 CYCLODEXTRINS  
37024 CYCLODEXTRIN  
(CYCLODEXTRIN OR CYCLODEXTRINS)  
10585 CYANURIC  
3 CYANURICS  
10588 CYANURIC  
(CYANURIC OR CYANURICS)  
L36 31 CYCLODEXTRIN AND CYANURIC

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FILE 'REGISTRY' ENTERED AT 09:29:42 ON 25 FEB 2008

L1 SCREEN 1993  
L2 STRUCTURE UPLOADED  
L3 QUE L2 AND L1  
L4 50 S L3  
L5 SCREEN 1993 AND 1842  
L6 STRUCTURE UPLOADED  
L7 QUE L6 AND L5  
L8 50 S L7  
L9 SCREEN 1993 AND 1842  
L10 STRUCTURE UPLOADED  
L11 QUE L10 AND L9  
L12 50 S L11  
L13 SCREEN 1993 AND 1842  
L14 STRUCTURE UPLOADED  
L15 QUE L14 AND L13  
L16 0 S L15  
L17 17 S L15 FULL

FILE 'CAPLUS' ENTERED AT 09:36:33 ON 25 FEB 2008

L18 8 S L17

FILE 'STNGUIDE' ENTERED AT 09:36:58 ON 25 FEB 2008  
ACTIVATE BCYCLO/Q

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L19 STR  
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FILE 'REGISTRY' ENTERED AT 09:45:18 ON 25 FEB 2008

L20 STRUCTURE UPLOADED  
L21 4 S L20  
L22 68 S L20 FULL

FILE 'CAPLUS' ENTERED AT 09:45:51 ON 25 FEB 2008

L23 17 S L22

FILE 'STNGUIDE' ENTERED AT 09:46:11 ON 25 FEB 2008

FILE 'CAPLUS' ENTERED AT 09:52:11 ON 25 FEB 2008  
E HALL GOULLE V/AU  
L24 25 S E1-E2  
E HALL VERONIQUE/AU  
L25 9 S E1-E2  
E GOULLE VERONIQUE/AU

L26 10 S E2-E3  
     E TZIKAS A/AU  
 L27 145 S E3-E8  
 L28 184 L24 OR L25 OR L26 OR L27  
 L29 1 L28 AND CYCLODEXTRIN  
 L30 113 L28 AND REACTIVE  
     S L20 AND (POLYSACCHARIDE OR CYCLODEXTRIN)

FILE 'REGISTRY' ENTERED AT 09:55:00 ON 25 FEB 2008  
 L31 4 S L20

FILE 'CAPLUS' ENTERED AT 09:55:00 ON 25 FEB 2008  
 L32 4 S L31  
 L33 1 S L32 AND (POLYSACCHARIDE OR CYCLODEXTRIN)

FILE 'CAPLUS' ENTERED AT 09:55:09 ON 25 FEB 2008  
 L34 1 L30 AND (POLYSACCHARIDE OR CYCLODEXTRIN)  
 L35 17 "REACTIVE CYCLODEXTRIN"

FILE 'STNGUIDE' ENTERED AT 09:56:48 ON 25 FEB 2008

FILE 'CAPLUS' ENTERED AT 10:02:32 ON 25 FEB 2008  
 L36 31 CYCLODEXTRIN AND CYANURIC

=> 136 not 135  
 L37 29 L36 NOT L35

=> d 137 1-29 ibib abs kwic

L37 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2008:157991 CAPLUS <<LOGINID::20080225>>  
 TITLE: Cosmetic method for making up or caring for keratinous substances such as nails, skin, lips or eyelashes, with noncrosslinked polyrotaxanes  
 INVENTOR(S): Luukas, Timo; Jager Lezer, Nathalie; Arnaud, Pascal  
 PATENT ASSIGNEE(S): L'Oreal, Fr.  
 SOURCE: PCT Int. Appl., 88pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008015272	A1	20080207	WO 2007-EP58067	20070803
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
FR 2904534	A1	20080208	FR 2006-53297	20060804

PRIORITY APPLN. INFO.:

FR 2006-53297

A 20060804

US 2006-836947P

P 20060811

AB A subject-matter of the invention is a cosmetic method for making up or for the nontherapeutic care of keratinous substances chosen from the nails, skin, lips or eyelashes, the method consisting in: (a) depositing on the said keratinous substances at least one layer of at least one first composition comprising at least one first noncrosslinked polyrotaxane and at least one second noncrosslinked polyrotaxane, (b) subjecting the said composition, simultaneously with or subsequent to its application, to at least one chemical, physicochem. and/or mech. stimulus. Thus, cosmetic foundation formulation comprised (in wt%): first composition: A: noncrosslinked polyrotaxanes 5, water 49.6, preservatives 0.75; B: water 5, glycerol 5, titanium dioxide 8.01, yellow iron oxide 1.19, red iron oxide 0.57, black iron oxide 0.23; C: glycetyl stearate 3, cetearyl alc. 1, isononyl isononanoate 20.5, preservatives 0.15; second composition: cyanuric chloride 0.25, sodium hydroxide 0.16, magnesium aluminum silicate 0.75, preservatives 0.75, water q.s. to 100.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . oxide 0.57, black iron oxide 0.23; C: glycetyl stearate 3, cetearyl alc. 1, isononyl isononanoate 20.5, preservatives 0.15; second composition: cyanuric chloride 0.25, sodium hydroxide 0.16, magnesium aluminum silicate 0.75, preservatives 0.75, water q.s. to 100.

IT INDEXING IN PROGRESS

IT 10016-20-3D,  $\alpha$ -Cyclodextrin, Inclusion compound with polyethyleneglycol-bisamine  
RL: COS (Cosmetic use); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
(cosmetic method for making up or caring for keratinous substances such as nails, skin, lips or eyelashes, with noncrosslinked polyrotaxanes)

IT 51-28-5D, 2,4-Dinitrophenol, derivs. 78-10-4, Tetraethoxysilane  
81-83-4D, Naphthalimide, derivs. 129-00-0D, Pyrene, derivs. 281-23-2D, Adamantane, derivs. 530-62-1, 1,1'-Carbonyldiimidazole 584-84-9, Tolylene 2,4-diisocyanate 586-11-8D, 3,5-Dinitrophenol, derivs. 681-84-5, Tetramethoxysilane 768-94-5, Adamantanamine 2216-49-1D, Trityl, derivs. 2321-07-5D, Fluorescein, derivs. 2386-87-0, 3,4-Epoxyhexylmethyl 3,4-epoxycyclohexanecarboxylate 7087-68-5, Ethyldisopropylamine 7585-39-9,  $\beta$ - $\beta$ -Cyclodextrin 9002-86-2, Poly(vinyl) chloride 9002-88-4, Polyethylene 9002-89-5, Poly(vinyl alcohol) 9002-98-6 9003-01-4, Poly (acrylic acid) 9003-05-8, Polyacrylamide 9003-07-0 9003-09-2, Poly(vinyl methyl ether) 9003-17-2, Polybutadiene 9003-22-9, vinyl chloride/vinylacetate copolymer 9003-27-4, Polyisobutylene 9003-31-0, Polyisoprene 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9003-54-7, acrylonitrile/styrene copolymer 9004-32-4, Carboxymethylcellulose 9004-34-6D, Cellulose, derivs. 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9005-25-8, Starch 9011-14-7, Poly(methyl methacrylate) 9016-00-6, Polydimethylsiloxane 9019-29-8 10016-20-3,  $\alpha$ -Cyclodextrin 12619-70-4D,  $\beta$ -Cyclodextrin, dimethyl-, glucosyl- 17465-86-0,  $\gamma$ - $\beta$ -Cyclodextrin 24968-79-4, acrylonitrile/methyl acrylate copolymer 24979-97-3, Polytetrahydrofuran 25087-26-7, Poly (methacrylic acid) 25322-68-3 25322-69-4 31900-57-9, Polydimethylsiloxane 56602-33-6, (Benzotriazol-1-yloxy)tris(dimethylamino)phosphonium hexafluorophosphate  
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)  
(cosmetic method for making up or caring for keratinous substances such as nails, skin, lips or eyelashes, with noncrosslinked polyrotaxanes)

IT 100-20-9, Terephthaloyl chloride 106-89-8, Epichlorohydrin 108-77-0,

Cyanuric chloride 111-30-8, Glutaraldehyde 4422-95-1,  
Trimesoyl chloride 26249-12-7, Dibromobenzene  
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process);  
RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or  
reagent); USES (Uses)  
(cosmetic method for making up or caring for keratinous substances such  
as nails, skin, lips or eyelashes, with noncrosslinked polyrotaxanes)

L37 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:1286491 CAPLUS <<LOGINID::20080225>>  
TITLE: Synthesis of  $\beta$ - cyclodextrin derivative  
containing cyanuric chloride moiety and its  
application to fragrant finish of textiles  
AUTHOR(S): Ko, Jae Hoon; Park, Yoon Cheol; Kim, Jin Woo; Kim,  
Young Ho  
CORPORATE SOURCE: Digital Dyeing and Finishing Technology Team, Korea  
Institute of Industrial Technology, Kyunggi-do,  
425-836, S. Korea  
SOURCE: Hankook Sumyu Gonghakhoeji (2007), 44(4), 183-188  
CODEN: HSGABW  
PUBLISHER: Korean Fiber Society  
DOCUMENT TYPE: Journal  
LANGUAGE: Korean

AB  $\beta$ -Cyclodextrin derivative containing cyanuric chloride moiety  
( $\beta$ CD-CC) was synthesized by a reaction of  $\beta$ - cyclodextrin  
( $\beta$ -CD) with cyanuric chloride in alkaline condition. FT-IR and  
UV spectra along with the results of elemental anal. indicated that  
cyanuric chloride was bound to  $\beta$ -CD. Remaining  
monochlorotriazine group in  $\beta$ CD-CC was expected to be used as a  
reactive site for cellulosic fibers. The  $\beta$ CD-CC could be used as a  
host material for inclusion complex of various guest mols. As an example,  
vanillin, a flavoring agent in foods and others, was included in the  
 $\beta$ CD-CC to make a perfume inclusion complex. UV anal. showed that the  
vanillin-included complex of  $\beta$ CD-CC released vanillin more slowly  
than vanillin itself, which reveals that it can be used as a feasible  
fragrant finishing agent for textiles.

TI Synthesis of  $\beta$ - cyclodextrin derivative containing  
cyanuric chloride moiety and its application to fragrant finish of  
textiles

AB  $\beta$ -Cyclodextrin derivative containing cyanuric chloride moiety  
( $\beta$ CD-CC) was synthesized by a reaction of  $\beta$ - cyclodextrin  
( $\beta$ -CD) with cyanuric chloride in alkaline condition. FT-IR and  
UV spectra along with the results of elemental anal. indicated that  
cyanuric chloride was bound to  $\beta$ -CD. Remaining  
monochlorotriazine group in  $\beta$ CD-CC was expected to be used as a  
reactive site for. . .

L37 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:886200 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 145:272429  
TITLE: Material having polyrotaxane and polymer, and ionic  
liquid, and method for production thereof  
INVENTOR(S): Ito, Kohzo; Samitsu, Sadaki; Araki, Jun; Kataoka,  
Toshiyuki  
PATENT ASSIGNEE(S): The University of Tokyo, Japan  
SOURCE: PCT Int. Appl., 47pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006090819	A1	20060831	WO 2006-JP303377	20060224
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2005-48679 A 20050224

AB Provided are a material which contains a liquid or is swelled by the liquid and which can be swelled by a liquid and exhibits flexibility, stretchability and/or viscoelasticity; and a method for production thereof. The above material which has a first polyrotaxane and a polymer, and an ionic liquid, wherein the first polyrotaxane has a first cyclic mol. (cyclodextrin), a first linear mol. (PEG) clathrating the first cyclic mol. in a skewering form and a first sealing group being arranged at both ends of the first linear mol. so as for the first cyclic mol. not to be separated from the first linear mol., and wherein the first polyrotaxane and at least a part of the polymer are bound via the first cyclic mol.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . has a first polyrotaxane and a polymer, and an ionic liquid, wherein the first polyrotaxane has a first cyclic mol. (cyclodextrin), a first linear mol. (PEG) clathrating the first cyclic mol. in a skewering form and a first sealing group being. . .

ST polyrotaxane polymer ionic liq flexibility stretchability viscoelasticity; cyclodextrin PEG polyrotaxane polymer ionic liq

IT Silanes

RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkoxy, crosslinker; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Capacitors

(double layer, elec.; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Secondary batteries

(lithium; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Actuators

Catalysts

Coating materials

Electric circuits

Electrochromic devices

Electroluminescent devices

Fuel cells

Polymer electrolytes

Sensors

Solar cells

(polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Rotaxanes  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Membranes, nonbiological  
 (separation; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT Onium compounds  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (swelling agent; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 864154-50-7P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (crosslinkable; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 77-77-0, Divinyl sulfone 100-20-9, Terephthaloyl chloride 106-89-8, Epichlorohydrin, reactions 108-77-0, Cyanuric chloride 111-30-8, Glutaraldehyde 530-62-1 4422-95-1, Trimesoyl chloride 26249-12-7, Dibromobenzene 26471-62-5, Tolylene diisocyanate 27359-20-2, Phenylene diisocyanate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (crosslinker; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 9002-89-5, Poly(vinyl alcohol)  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (gelling composition; polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 67-56-1DP, Methanol, reaction products with  $\alpha$ - cyclodextrin, rotaxane compound with adamantylaminocarbonylmethyl-terminated polyethylene glycol 10016-20-3DP,  $\alpha$ - Cyclodextrin, Me ether, rotaxane compound with adamantylaminocarbonylmethyl-terminated polyethylene glycol 852043-90-4DP, rotaxane compds. with  $\alpha$ - cyclodextrin Me ether  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 907563-28-4P  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
 (polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 162396-42-1DP, adamantylamine-blocked derivative  
 RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)  
 (polyrotaxanes based on cyclodextrin and ionic liquid and method for production and use of crosslinked compds.)

IT 6220-15-1, 1-Hexylpyridinium chloride 61546-01-8, 1-Hexadecyl-3-methylimidazolium chloride 64697-40-1, 1-Octyl-3-methylimidazolium chloride 65039-09-0, 1-Ethyl-3-methylimidazolium chloride 79917-90-1, 1-Butyl-3-methylimidazolium chloride 85100-77-2, 1-Butyl-3-methylimidazolium bromide 114569-84-5, 1-Dodecyl-3-methylimidazolium chloride 171058-17-6, 1-Hexyl-3-methylimidazolium chloride 171058-18-7, 1-Decyl-3-methylimidazolium chloride 171058-19-8, 1-Octadecyl-3-methylimidazolium chloride 171058-21-2, 1-Tetradecyl-3-methylimidazolium chloride

RL: MOA (Modifier or additive use); USES (Uses)  
(swelling agent; polyrotaxanes based on cyclodextrin and  
ionic liquid and method for production and use of crosslinked compds.)

L37 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:830650 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 145:388384

TITLE: Use of  $\beta$ - cyclodextrin bonded phase with  
s-triazine moiety in the spacer for separation of  
aromatic carboxylic acid isomers by high-performance  
liquid chromatography

AUTHOR(S): Lin, Chen-Hsing; Chen, Chih-Yu; Chang, Shu-Wen; Wu,  
Jong-Chang; Lin, Ching-Erh

CORPORATE SOURCE: Department of Applied Chemistry, Fooyin University,  
Kaohsiung County, Taiwan

SOURCE: Analytica Chimica Acta (2006), 576(1), 84-90  
CODEN: ACACAM; ISSN: 0003-2670

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The separation and retention behavior of five aromatic carboxylic acid isomers  
was

studied by HPLC using a  $\beta$ - cyclodextrin bonded phase with  
s-triazine ring in the spacer. The influence of mobile phase pH on the  
retention was examined. The presence of s-triazine moiety in the spacer  
enhances greatly the selectivity of the isomers of aromatic carboxylic acids.  
Baseline sepns. of the five aromatic carboxylic acid isomers were achieved.  
In particular, the isomers of toluic, aminobenzoic, nitrobenzoic and  
hydroxybenzoic acid were successfully and effectively separated. The  
chromatog. results indicate that, in addition to inclusion complexation,  
 $\pi$ - $\pi$  interaction and hydrogen bonding interaction between the bonded  
phase and analytes play significant roles in the retention of these acid  
isomers. Different elution orders were observed for these acidic solutes  
with different substituents. Possible retention mechanisms are discussed.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Use of  $\beta$ - cyclodextrin bonded phase with s-triazine moiety  
in the spacer for separation of aromatic carboxylic acid isomers by  
high-performance liquid chromatography

AB The separation and retention behavior of five aromatic carboxylic acid isomers  
was

studied by HPLC using a  $\beta$ - cyclodextrin bonded phase with  
s-triazine ring in the spacer. The influence of mobile phase pH on the  
retention was examined. The. . .

ST cyclodextrin bonded silica phase triazine moiety spacer HPLC;  
arom carboxylic acid isomer HPLC cyclodextrin bonded silica  
phase

IT Carboxylic acids, analysis

RL: ANT (Analyte); ANST (Analytical study)  
(aromatic, analytes; use of  $\beta$ - cyclodextrin bonded phase  
with s-triazine moiety in the spacer for separation of aromatic carboxylic  
acid isomers by HPLC)

IT Isomers

(positional; use of  $\beta$ - cyclodextrin bonded phase with  
s-triazine moiety in the spacer for separation of aromatic carboxylic acid  
isomers by HPLC)

IT Silica gel, analysis

RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified);

SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation);  
 USES (Uses)  
 (reaction products; use of  $\beta$ - cyclodextrin bonded phase  
 with s-triazine moiety in the spacer for separation of aromatic carboxylic  
 acid  
 acid isomers by HPLC)  
 IT HPLC stationary phases  
 (use of  $\beta$ - cyclodextrin bonded phase with s-triazine  
 moiety in the spacer for separation of aromatic carboxylic acid isomers by  
 HPLC)  
 IT 62-23-7, p-Nitrobenzoic acid 69-72-7, o-Hydroxybenzoic acid, analysis  
 86-55-5, 1-Naphthoic acid 93-09-4, 2-Naphthoic acid 99-04-7, m-Toluic  
 acid 99-05-8, m-Aminobenzoic acid 99-06-9, m-Hydroxybenzoic acid,  
 analysis 99-94-5, p-Toluic acid 99-96-7, p-Hydroxybenzoic acid,  
 analysis 118-90-1, o-Toluic acid 118-92-3, o-Aminobenzoic acid  
 121-92-6, m-Nitrobenzoic acid 150-13-0, p-Aminobenzoic acid 552-16-9,  
 o-Nitrobenzoic acid  
 RL: ANT (Analyte); ANST (Analytical study)  
 (analyte; use of  $\beta$ - cyclodextrin bonded phase with  
 s-triazine moiety in the spacer for separation of aromatic carboxylic acid  
 isomers by HPLC)  
 IT 108-77-0, Cyanuric chloride 919-30-2, 3-  
 Aminopropyltriethoxysilane 7585-39-9,  $\beta$ - Cyclodextrin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in preparation of  $\beta$ - cyclodextrin bonded phase with  
 s-triazine moiety in the spacer for separation of aromatic carboxylic acid  
 isomers by HPLC)  
 IT 911011-28-4DP, reaction product with aminopropylsilylated silica  
 RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified);  
 SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation);  
 USES (Uses)  
 (use of  $\beta$ - cyclodextrin bonded phase with s-triazine  
 moiety in the spacer for separation of aromatic carboxylic acid isomers by  
 HPLC)

L37 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:164896 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 144:234883  
 TITLE: Reactive polysaccharide derivatives, their preparation  
 and their use  
 INVENTOR(S): Ouziel, Philippe; Kulke, Torsten  
 PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.  
 SOURCE: PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006018412	A1	20060223	WO 2005-EP53923	20050810
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM  
 EP 1778735 A1 20070502 EP 2005-777991 20050810  
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
 CN 101044166 A 20070926 CN 2005-80036013 20050810  
 US 2007277328 A1 20071206 US 2007-660533 20070216  
 IN 2007CN00740 A 20070824 IN 2007-CN740 20070220  
 PRIORITY APPLN. INFO.: EP 2004-103997 A 20040820  
 WO 2005-EP53923 W 20050810

AB The invention relates to a reactive polysaccharide derivative of formula  $[Z1-B-SO2-CH2-CH2-O]n-PS-[OH]m$ , wherein B is a bridging group containing secondary or tertiary N atom(s) with a proviso, Z1 is a reactive radical and PS corresponds to the backbone of the polysaccharide mol. apart from the hydroxyl groups, m is 0, 1 or an integer greater than 1, n is 1 or an integer greater than 1, and the sum of n+m corresponds to the original number of hydroxyl groups in the polysaccharide mol., which is useful as a finishing agent for textile fibers and for other applications. Thus, etherifying Cavamax W 7 ( $\beta$ - cyclodextrin) with 4-vinylsulfonylaniline and reacting the resulting product with cyanuric chloride and 4-( $\beta$ -sulfatoethylsulfonyl)aniline gave a cyclodextrin derivative bearing OSO<sub>3</sub>H group which showed good fixation on a cotton fabric.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . mol., which is useful as a finishing agent for textile fibers and for other applications. Thus, etherifying Cavamax W 7 ( $\beta$ - cyclodextrin) with 4-vinylsulfonylaniline and reacting the resulting product with cyanuric chloride and 4-( $\beta$ -sulfatoethylsulfonyl)aniline gave a cyclodextrin derivative bearing OSO<sub>3</sub>H group which showed good fixation on a cotton fabric.

ST cyclodextrin reactive group manuf textile fiber finishing  
 IT 7585-39-9DP,  $\beta$ - Cyclodextrin, mono(4-aminophenylsulfonylethyl) ethers, reaction products with cyanuric chloride

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (finishing agent; manufacture of reactive polysaccharide derivs. for use in textile finishing)

IT 108-77-0, Cyanuric chloride 2494-89-5, 4-( $\beta$ -Sulfatoethylsulfonyl)aniline 7585-39-9, Cavamax W 7 25781-90-2,  
 4-Vinylsulfonylaniline

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (manufacture of reactive polysaccharide derivs. for use in textile finishing)

L37 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1218478 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 143:441284

TITLE: Materials containing crosslinked polyrotaxanes with high swellability and electric sensitivity, and their manufacture

INVENTOR(S): Ito, Kozo; Okumura, Yasushi

PATENT ASSIGNEE(S): Japan Science and Technology Agency, Japan; Tokyo University

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005320392	A	20051117	JP 2004-138038	20040507

PRIORITY APPLN. INFO.:

JP 2004-138038 20040507

AB The materials contain  $\geq 2$  polyrotaxane mols. that are crosslinked via chemical bonding on their ring constituents, wherein the ring has ionic groups via compds. having  $\geq 2$  crosslinkable groups. Thus, a rotaxane of  $\alpha$ - cyclodextrin with dinitrofluorobenzene-terminated polyethylene glycol was reacted with cyanuric chloride and further reacted with glycine to show swelling ratio 4200-6100 fold.

AB . . . on their ring constituents, wherein the ring has ionic groups via compds. having  $\geq 2$  crosslinkable groups. Thus, a rotaxane of  $\alpha$ - cyclodextrin with dinitrofluorobenzene-terminated polyethylene glycol was reacted with cyanuric chloride and further reacted with glycine to show swelling ratio 4200-6100 fold.

ST polyrotaxane ring crosslinking swellability polyoxyethylene cyclodextrin; cyanuric chloride crosslinker rotaxane polyoxyethylene cyclodextrin absorbent

IT 7585-39-9DP,  $\beta$ - Cyclodextrin, rotaxane compds., crosslinked 9002-88-4DP, Polyethylene, rotaxane compds., crosslinked 9003-07-0DP, Polypropylene, rotaxane compds., crosslinked 9003-17-2DP, Polybutadiene, rotaxane compds., crosslinked 9003-27-4DP, Polyisobutylene, rotaxane compds., crosslinked 9003-31-0DP, Polyisoprene, rotaxane compds., crosslinked 9016-00-6DP, Dimethylsiloxane, rotaxane compds., crosslinked 17465-86-0DP,  $\gamma$ - Cyclodextrin, rotaxane compds., crosslinked 24979-97-3DP, Polytetrahydrofuran, rotaxane compds., crosslinked 25190-06-1DP, rotaxane compds., crosslinked 25322-69-4DP, Polypropylene glycol, rotaxane compds., crosslinked

RL: IMF (Industrial manufacture); PREP (Preparation)  
(crosslinked polyrotaxanes with high swellability and elec. sensitivity)

L37 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1013623 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 144:33789

TITLE: Signal enhancement of protein chips using 3D-materials for immobilization

AUTHOR(S): Preininger, Claudia; Sauer, Ursula; Obersriebnig, Stefan; Trombitas, Max

CORPORATE SOURCE: Department of Bioresources, ARC Seibersdorf Research GmbH, Seibersdorf, 2444, Austria

SOURCE: International Journal of Environmental Analytical Chemistry (2005), 85(9-11), 645-654  
CODEN: IJEAA3; ISSN: 0306-7319

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 3D-materials, such as cross-linked poly(vinyl alc.) (PVA), PVA/monochlorotriazinyl- $\beta$ - cyclodextrin (MCT)-doped sol-gel and modified melamine particles were employed as an immobilization matrix for proteins in order to obtain enhanced signal-to-noise ratios. Crosslinking PVA surfaces with cyanuric chloride (TsT) leads to

1.4-fold signal enhancement, whereas linking with MCT results in five times stronger signals. Signals obtained from PVA/MCT-doped sol-gel materials were up to eight times stronger, since MCT contributed to improved interconnection of the sol-gel and covalent binding of IgG. Moreover, 1.1  $\mu$ m melamine particles derivatized with TsT or MCT or with no crosslinker were used for immobilization of proteins. The particles were arrayed onto the chip in various buffer or hydrogel solns. The best results were achieved for melamine particles in PEG and PVA solns. containing MCT as a crosslinker.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB 3D-materials, such as cross-linked poly(vinyl alc.) (PVA), PVA/monochlorotriazinyl- $\beta$ - cyclodextrin (MCT)-doped sol-gel and modified melamine particles were employed as an immobilization matrix for proteins in order to obtain enhanced signal-to-noise ratios. Crosslinking PVA surfaces with cyanuric chloride (TsT) leads to 1.4-fold signal enhancement, whereas linking with MCT results in five times stronger signals. Signals obtained from. . .

IT 108-78-1D, Melamine, cyanuric chloride-derivatized 108-78-1D, Melamine, monochlorotriazinyl- $\beta$ - cyclodextrin-derivatized  
 RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)  
 (particle; signal enhancement of protein chips using 3D-materials for immobilization)

IT 108-77-0, Cyanuric chloride 782442-37-9, Monochlorotriazinyl- $\beta$ - cyclodextrin  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (signal enhancement of protein chips using 3D-materials for immobilization)

L37 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:962315 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 143:249427  
 TITLE: Compound having crosslinked polyrotaxanes with good optical properties  
 INVENTOR(S): Ito, Kohzo; Kidowaki, Masatoshi; Sakurai, Yuzo; Zhao, Changming  
 PATENT ASSIGNEE(S): Japan  
 SOURCE: PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005080469	A1	20050901	WO 2005-JP171	20050111
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

CA 2552835	A1	20050901	CA 2005-2552835	20050111
EP 1707587	A1	20061004	EP 2005-703410	20050111
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1910218	A	20070207	CN 2005-80002124	20050111
IN 2006CN02897	A	20070706	IN 2006-CN2897	20060807
PRIORITY APPLN. INFO.:			JP 2004-3478	A 20040108
			WO 2005-JP171	W 20050111

AB Title crosslinked polyrotaxanes have  $\geq 2$  polyrotaxane mols., wherein linear mols. are included in a skewered-like state at the opening of cyclodextrin mols. and blocking groups are provided at both ends of the linear mols. so as to prevent the cyclodextrin mols. from leaving, and cyclodextrin mols. in  $\geq 2$  polyrotaxane mols. being bonded to each other via a chemical bond, characterized in that hydroxyl groups in the cyclodextrin mols. are partly substituted by nonionic groups. Thus, 3.0 g  $\alpha$ -cyclodextrin and 12 g amine-terminated polyethylene glycol were mixed, 2.2 mL diisopropylethylamine, adamantylacetic acid 2.5, 1-hydroxybenzotriazole 1.8, benzotriazol-1-yl-oxytris(dimethylamino)phosphonium hexafluorophosphate 5.3 g were added therein and reacted at 5° for 24 h to give an adamantyl-terminated polyrotaxane, 10. g of which was reacted with 1.2 g Me iodide in the presence of sodium methoxide for 19 h to give a oxymethylated polyrotaxane showing good solubility in DMSO and water, 450 mg of the resulting compound was reacted with 36 mg carbonylbisimidazole at 50° for 48 h to give a crosslinked methylated polyrotaxane, showing good visible light transmittance.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Title crosslinked polyrotaxanes have  $\geq 2$  polyrotaxane mols., wherein linear mols. are included in a skewered-like state at the opening of cyclodextrin mols. and blocking groups are provided at both ends of the linear mols. so as to prevent the cyclodextrin mols. from leaving, and cyclodextrin mols. in  $\geq 2$  polyrotaxane mols. being bonded to each other via a chemical bond, characterized in that hydroxyl groups in the cyclodextrin mols. are partly substituted by nonionic groups. Thus, 3.0 g  $\alpha$ -cyclodextrin and 12 g amine-terminated polyethylene glycol were mixed, 2.2 mL diisopropylethylamine, adamantylacetic acid 2.5, 1-hydroxybenzotriazole 1.8, benzotriazol-1-yl-oxytris(dimethylamino)phosphonium hexafluorophosphate 5.3 g. . .

ST compd crosslinked polyrotaxane optical property; cyclodextrin polyethylene glycol rotaxane compd methylation crosslinking

IT Rotaxanes

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(crosslinked, polyoxyalkylenes with cyclodextrin; compds. having crosslinked polyrotaxanes with good optical properties)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(rotaxanes with cyclodextrin; compds. having crosslinked polyrotaxanes with good optical properties)

IT 77-77-0, Divinylsulfone 100-20-9, Terephthaloyl chloride 106-89-8, Epichlorohydrin, reactions 108-77-0, Cyanuric chloride

111-30-8, Glutaraldehyde 530-62-1 4422-95-1, Trimesoyl chloride

26249-12-7, Dibromobenzene 26471-62-5, Tolylene diisocyanate

27359-20-2, Phenylene diisocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

(crosslinker; compds. having crosslinked polyrotaxanes with good

optical properties)  
IT 74-88-4DP, Methyl iodide, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and carbonylbisimidazole 74-96-4DP, Ethyl bromide, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and divinylsulfone 75-26-3DP, 2-Bromopropane, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and divinylsulfone 75-56-9DP, Propylene oxide, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and carbonylbisimidazole 77-77-0DP, Divinylsulfone, reaction products with adamantyl-blocked methylated cyclodextrin-polyethylene glycol rotaxanes 78-77-3DP, Isobutyl bromide, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and divinylsulfone 108-24-7DP, Acetic anhydride, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and carbonylbisimidazole 110-78-1DP, Propylisocyanate, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and divinylsulfone 530-62-1DP, reaction products with adamantyl-blocked methylated cyclodextrin-polyethylene glycol rotaxanes 768-94-5DP, Adamantanamine, reaction products with cyclodextrin-polyethylene glycol rotaxanes, Me iodide, and carbonylbisimidazole 1795-48-8DP, Isopropylisocyanate, reaction products with adamantyl-blocked cyclodextrin-polyethylene glycol rotaxanes and divinylsulfone 4942-47-6DP, Tricyclo[3.3.1.13,7]decane-1-acetic acid, reaction products with cyclodextrin-polyethylene glycol rotaxanes, Me iodide, and carbonylbisimidazole 126296-62-6DP, adamantyl-blocked, reaction products with Me iodide and carbonylbisimidazole  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(rotaxane; compds. having crosslinked polyrotaxanes with good optical properties)

L37 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:921809 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 140:323200  
TITLE: Incorporation of surface-active compounds into  $\beta$ -cyclodextrin  
AUTHOR(S): Davidenko, T. I.; Serbul, T. G.  
CORPORATE SOURCE: Fiz.-Khim. Inst. im. A. V. Bogatskogo, NAN Ukrainsy, Odessa, Ukraine  
SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition) (2003), 69(9-10), 18-21  
CODEN: UKZHAU; ISSN: 0041-6045  
PUBLISHER: Institut Obshchei i Neorganicheskoi Khimii im. V. I. Vernadskogo NAN Ukrainsy  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
AB Upon the interaction of  $\beta$ - cyclodextrin and surface-active substances, such as OS-20 and OTsS-21, the new-complexes were obtained. Basing on the thermogravimetric data, also on IR, NMR 1H and NMR 13C spectroscopy it was concluded the formation of compds. of inclusion due to hydrophobic interaction of the inner cavity of  $\beta$ - cyclodextrin and surface-active compds (SAC). With a usage of cyanuric chloride it was conducted the  $\beta$ -CD immobilization on sephadex, showing, that the immobilized  $\beta$ -CD, also sorbes the surface-active compound During the crosslinking of starch and amylose with cyanuric chloride in the presence of SAC the addnl. sites of binding are formed, allowing to recover up to 63.0 and 67.6% of OC-20 from

the water solution, resp.

TI Incorporation of surface-active compounds into  $\beta$ - cyclodextrin

AB Upon the interaction of  $\beta$ - cyclodextrin and surface-active substances, such as OS-20 and OTsS-21, the new-complexes were obtained. Basing on the thermogravimetric data, also on IR, . . .  $^{13}\text{C}$  spectroscopy it was concluded the formation of compds. of inclusion due to hydrophobic interaction of the inner cavity of  $\beta$ - cyclodextrin and surface-active compds (SAC). With a usage of cyanuric chloride it was conducted the  $\beta$ -CD immobilization on sephadex, showing, that the immobilized  $\beta$ -CD, also sorbes the surface-active compound During the crosslinking of starch and amylose with cyanuric chloride in the presence of SAC the addnl. sites of binding are formed, allowing to recover up to 63.0 and. . .

ST surfactant nonionic complexation beta cyclodextrin  
thermogravimetry IR NMR

IT Alcohols, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(C16-18, ethoxylated, OTsS 21; incorporation of nonionic surfactants into  $\beta$ - cyclodextrin)

IT Polyoxalkylenes, processes  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(ether with C16-18 alcs.; incorporation of nonionic surfactants into  $\beta$ - cyclodextrin)

IT Surfactants  
(nonionic; incorporation of nonionic surfactants into  $\beta$ - cyclodextrin)

IT 7585-39-9,  $\beta$ - Cyclodextrin 9005-82-7, Amylose  
9041-36-5D, Sephadex G 200,  $\beta$ - cyclodextrin immobilization products 11099-04-0, OS 20 (surfactant) 185846-49-5, Cyanuric chloride-. $\beta$ .- cyclodextrin copolymer  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(incorporation of nonionic surfactants into  $\beta$ - cyclodextrin)

L37 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:211024 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 139:7511  
TITLE: Design and properties of topological gels  
AUTHOR(S): Okumura, Yasushi; Ito, Kohzo  
CORPORATE SOURCE: Graduate School of Frontier Sciences, University of Tokyo, Tokyo, 113-8656, Japan  
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2003), 44(1), 614-615  
CODEN: ACPPAY; ISSN: 0032-3934  
PUBLISHER: American Chemical Society, Division of Polymer Chemistry  
DOCUMENT TYPE: Journal; (computer optical disk)  
LANGUAGE: English

AB In this study, a new kind of gel is synthesized from the polyrotaxane in which a PEG chain (mol. weight 20,000, 35,000, 70,000, 100,000) with large mol. weight (2,4-dinitrofluorobenzene endcapped) is sparsely included by  $\alpha$ - cyclodextrins. By chemical crosslinking  $\alpha$ - cyclodextrins contained in the polyrotaxanes in solns., transparent gels with good tensile strength, low viscosity and large swellability in water are produced. In this gel, the polymer chains with bulky end groups are neither covalently crosslinked like chemical gels nor

attractively interacted like phys. gels, but are topol. interlocked by figure-of-eight crosslinks.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . which a PEG chain (mol. weight 20,000, 35,000, 70,000, 100,000) with large mol. weight (2,4-dinitrofluorobenzene endcapped) is sparsely included by  $\alpha$ - cyclodextrins. By chemical crosslinking  $\alpha$ - cyclodextrins contained in the polyrotaxanes in solns., transparent gels with good tensile strength, low viscosity and large swellability in water are. . .

ST polyethylene glycol cyclodextrin polyrotaxane topol gel

IT Rotaxanes

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polyethylene glycol with cyclodextrin; preparation and properties of polyrotaxane topol. gels)

IT 108-77-0, Cyanuric chloride 530-62-1, N,N'-Carbonyldiimidazole

RL: RCT (Reactant); RACT (Reactant or reagent) (crosslinker; preparation and properties of polyrotaxane topol. gels)

L37 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:814163 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 137:322269

TITLE: Selective covalent-binding compounds having therapeutic, diagnostic and analytical applications

INVENTOR(S): Green, Bernard S.

PATENT ASSIGNEE(S): Semorex Inc., USA

SOURCE: PCT Int. Appl., 67 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083708	A2	20021024	WO 2002-IL307	20020416
WO 2002083708	A3	20031023		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2446921	A1	20021024	CA 2002-2446921	20020416
AU 2002307775	A1	20021028	AU 2002-307775	20020416
EP 1385988	A2	20040204	EP 2002-761961	20020416
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004525973	T	20040826	JP 2002-581463	20020416
US 2004121405	A1	20040624	US 2003-474042	20031015
PRIORITY APPLN. INFO.:			US 2001-283645P	P 20010416
			WO 2002-IL307	W 20020416

AB Novel compds. are provided having enhanced affinity for a desired, preselected, target substance (a small mol.; a macromol. such as a protein, a carbohydrate, a nucleic acid, a cell, a viral particle, etc.)

by modification with chemical groups that allow these substances to form strong bonds, such as irreversible covalent bonds, with the desired target substance. These qualities of tight, specific binding are reminiscent of antibody-like affinity; hence the new substances are termed COBALT, an acronym for covalent-binding antibody-like trap. The present invention includes a process wherein a target species is chosen and then, by synthetic chemical procedures and modifications, novel substances (COBALTs) are obtained that exhibit selective and covalent binding to the preselected target species. The applications of the COBALTs include diagnostic, anal., therapeutic and industrial applications.

Cholesterol-binding molecularly-imprinted polymer MS50 was prepared by polymerization of cholesteryl (4-vinyl)phenyl carbamate (template monomer),

EGDM

and cholesteryl methacrylate to make polymer MS41 and subsequent removal of the cholesterol from the carbamate in polymer MS41. COBALTs MS71 and MS80 were made by reaction of MS50 with triphosgene and thiophosgene, resp., for better cholesterol binding activity.

IT 108-77-0D, Cyanuric chloride, derivs. 290-87-9D,  
 1,3,5-Triazine, compds. 7585-39-9D,  $\beta$ - Cyclodextrin,  
 compds. 10016-20-3D,  $\alpha$ - Cyclodextrin, compds.  
 12619-70-4D, Cyclodextrin, compds. 13780-71-7D, Boronic acid,  
 compds. 17465-86-0D,  $\gamma$ - Cyclodextrin, compds.  
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified);  
 PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use);  
 ANST (Analytical study); BIOL (Biological study); RACT (Reactant or  
 reagent); USES (Uses)  
 (selective covalent-binding compds. having therapeutic, diagnostic and  
 anal. applications)

L37 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:449955 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 137:34423  
 TITLE: Textile material permanently finished with polymeric  
cyclodextrins, and method for its manufacture  
 INVENTOR(S): Buschmann, Hans-Juergen; Schollmeyer, Eckhard  
 PATENT ASSIGNEE(S): Deutsches Textilforschungszentrum Nord-West E.V.,  
 Germany  
 SOURCE: PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046520	A1	20020613	WO 2001-EP14367	20011207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10060710	A1	20020613	DE 2000-10060710	20001207
AU 2002027995	A	20020618	AU 2002-27995	20011207
EP 1341958	A1	20030910	EP 2001-989583	20011207

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2001015992 A 20040113 BR 2001-15992 20011207  
 IN 2003CN01030 A 20050422 IN 2003-CN1030 20030630  
 US 2005260905 A1 20051124 US 2003-433707 20031112  
 PRIORITY APPLN. INFO.: DE 2000-10060710 A 20001207  
 WO 2001-EP14367 W 20011207

AB Natural or synthetic textiles with a permanent cyclodextrin finish comprise 0.2-80 weight% of a polymer matrix, preferably of polyester or polyurethane containing 2-30 weight% cyclodextrin (derivates), especially  $\beta$ - cyclodextrin, are suitable for release of pharmaceutically acting substances or fragrances and perfumes, in medical diagnostics, or for incorporation of contaminants from liquid or gaseous media. The polymer matrix may be obtained by crosslinking of cyclodextrins with polyalcs., polycarboxylic acids, polyisocyanates, alkoxy siloxanes, or cyanuric chloride. The textile is prepared (a) by application of an aqueous and/or organic solution of cyclodextrin (derivs.), optionally containing further additives and without forming a chemical bond to the textile, (b) partially drying of the textile, and (c) application of the polymer-forming component and polymerization. Thus, a cotton fabric as well as a polyester fabric

was padded in an impregnating liquid consisting of 50 g/L dimethylolurea, 10 g/L magnesium chloride hexahydrate, 1 g/L ammonium sulfate and 0-50 g/L  $\beta$ - cyclodextrin (6 concns. in tens steps) and dried 90 min at  $150^\circ$ , before the textile was dipped in a standard solution of butyric acid (10 g/L). It was shown, that with increasing concns. of  $\beta$ - cyclodextrin, an increased uptake of butyric acid was observed

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Textile material permanently finished with polymeric cyclodextrins, and method for its manufacture

AB Natural or synthetic textiles with a permanent cyclodextrin finish comprise 0.2-80 weight% of a polymer matrix, preferably of polyester or polyurethane containing 2-30 weight% cyclodextrin (derivates), especially  $\beta$ - cyclodextrin, are suitable for release of pharmaceutically acting substances or fragrances and perfumes, in medical diagnostics, or for incorporation of contaminants from liquid or gaseous media. The polymer matrix may be obtained by crosslinking of cyclodextrins with polyalcs., polycarboxylic acids, polyisocyanates, alkoxy siloxanes, or cyanuric chloride. The textile is prepared (a) by application of an aqueous and/or organic

solution of cyclodextrin (derivs.), optionally containing further additives and without forming a chemical bond to the textile, (b) partially drying of the textile, . . . an impregnating liquid consisting of 50 g/L dimethylolurea, 10 g/L magnesium chloride hexahydrate, 1 g/L ammonium sulfate and 0-50 g/L  $\beta$ - cyclodextrin (6 concns. in tens steps) and dried 90 min at  $150^\circ$ , before the textile was dipped in a standard solution of butyric acid (10 g/L). It was shown, that with increasing concns. of  $\beta$ - cyclodextrin, an increased uptake of butyric acid was observed

ST cotton textile permanent cyclodextrin content polymer matrix; polyester textile permanent cyclodextrin content polymer matrix; polyurethane polyester cyclodextrin contg polymer matrix; cosmetic pharmaceutical diagnosis pollutant absorber textile permanent cyclodextrin

IT Polysiloxanes, reactions

Silanes  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkoxy, crosslinking agent for cyclodextrins; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Polyester fibers, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(cotton blends, fabric; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Textiles  
(cotton-polyester; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Polyesters, uses  
Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cyclodextrin-containing; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Carboxylic acids, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polycarboxylic, crosslinking agent for cyclodextrins; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Cotton fibers  
(polyester blends, fabric; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Alcohols, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(polyhydric, crosslinking agent for cyclodextrins; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Absorbents  
Diagnostic agents  
Fabric finishing  
Nonwoven fabrics  
Textiles  
Yarns  
(textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT Natural fibers  
Synthetic fibers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT 436143-01-0P  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(Textile material permanently finished with polymeric cyclodextrins, and method for its manufacture)

IT 75-13-8D, Isocyanic acid, esters 108-77-0, Cyanuric chloride  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(crosslinking agent for cyclodextrins; textile material permanently finished with cyclodextrin polymers and method for its manufacture)

IT 101829-64-5P,  $\beta$ - Cyclodextrin-1,6-hexamethylene diisocyanate copolymer  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(textile material permanently finished with cyclodextrin)

polymers and method for its manufacture)

L37 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:405583 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 137:90381  
TITLE: A new spectroscopic derivatization reagent for the analysis of DL-amino acids by micellar electrokinetic capillary chromatography  
AUTHOR(S): Su, Mei-Hong; Wang, Zhi-Hua; Nie, Li-Hua; Ma, Quan-Li; Ma, Hui-Min; Liang, Shu-Chuan  
CORPORATE SOURCE: Center for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China  
SOURCE: Analytical Sciences (2001), 17(Suppl.), a271-a274  
CODEN: ANSCEN; ISSN: 0910-6340  
PUBLISHER: Japan Society for Analytical Chemistry  
DOCUMENT TYPE: Journal; (computer optical disk)  
LANGUAGE: English  
AB In this work, a new spectroscopic reagent, 3-(4,6-dichloro-1,3,5-triazinylamino)-7-dimethylamino-2-methylphenazine (DTDP), was prepared, and its application to the chiral separation of DL-amino acids (AAs) was evaluated. It was found that after derivatization with DTDP, the aliphatic amino acids could produce a strong UV absorption at 282 nm. The apparent molar absorptivities of these derivs. are of 104M<sup>-1</sup> cm<sup>-1</sup> and thus the concentration of

the amino acids down to 3+10<sup>-7</sup> M can still give a detectable signal (S/N = 3) even with a simpler UV detector. The conditions for the derivatization reaction were optimized. The factors affecting the resolution of DL-amino acids, such as pH, surfactant (SDS), chiral selector ( $\beta$ -CD) and organic modifier, were investigated. The best results for the chiral separation of DTDP-AAs were achieved in a mixed SDS- $\beta$ -CD-borate-isopropanol medium at pH 9.0.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 7585-39-9,  $\beta$ -Cyclodextrin  
RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process)

(spectroscopic derivatization reagent for anal. of DL-amino acids by micellar electrokinetic capillary chromatog.)

IT 108-80-5, Cyanuric acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(spectroscopic derivatization reagent for anal. of DL-amino acids by micellar electrokinetic capillary chromatog.)

L37 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:240889 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 136:280778  
TITLE: Rotaxane dyes based on reactive azo dyes and cyclodextrins

INVENTOR(S): Anderson, Harry Laurence; Craig, Michael Robert; Hutchings, Michael Gordon

PATENT ASSIGNEE(S): Basf Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 28 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002024816	A1	20020328	WO 2001-GB4265	20010925
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001090094	A5	20020402	AU 2001-90094	20010925
GB 2371554	A	20020731	GB 2001-23041	20010925
PRIORITY APPLN. INFO.:			GB 2000-23446	A 20000925
			WO 2001-GB4265	W 20010925

OTHER SOURCE(S): MARPAT 136:280778

AB Rotaxane type reactive dyes comprise a reactive azo chromophoric guest mol. and a macrocyclic host mol. wherein the macrocyclic host mol. (especially a

cyclodextrin) has a macromol. aperture through which the reactive azo chromophoric guest mol. extends. Such inclusion compound dyes are resistant to bleaching in solution or on cotton. Prepared as an example was orange 6-[4-[N-[4-chloro-6-(3-sulfophenylamino)-s-triazin-2-yl]-N-methylamino]phenylazo]-1,3-naphthalenedisulfonic acid trisodium salt/trimethyl- $\alpha$ - cyclodextrin ( $\lambda_{max}$  364.15 nm).

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Rotaxane dyes based on reactive azo dyes and cyclodextrins

AB . . . dyes comprise a reactive azo chromophoric guest mol. and a macrocyclic host mol. wherein the macrocyclic host mol. (especially a cyclodextrin) has a macromol. aperture through which the reactive azo chromophoric guest mol. extends. Such inclusion compound dyes are resistant to bleaching in solution or on cotton. Prepared as an example was orange 6-[4-[N-[4-chloro-6-(3-sulfophenylamino)-s-triazin-2-yl]-N-methylamino]phenylazo]-1,3-naphthalenedisulfonic acid trisodium salt/trimethyl- $\alpha$ - cyclodextrin ( $\lambda_{max}$  364.15 nm).

ST reactive azo dye cyclodextrin inclusion compd prodn application; bleach resistant rotaxane reactive dye prodn application cotton

IT Reactive azo dyes

(halotriazine; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT Reactive dyeing

(of cotton with reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT Rotaxanes

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 100-61-8, N-Methylaniline, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(coupling component; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 50976-35-7, 6-Aminonaphthalene-1,3-disulfonic acid disodium salt

RL: RCT (Reactant); RACT (Reactant or reagent)  
(diazo component; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 405515-54-0DP, inclusion compds. with cyclodextrins  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (dyes; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 344764-99-4P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 344764-98-3P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (orange dye; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

IT 108-77-0, Cyanuric chloride 121-47-1, Metanilic acid  
 68715-56-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (starting material; preparation of reactive azo dye-cyclodextrin inclusion compds. resistant to bleaching)

L37 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:816746 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 135:332679  
 TITLE: Compound comprising crosslinked polyrotaxanes  
 INVENTOR(S): Okumura, Yasushi; Ito, Kohzo  
 PATENT ASSIGNEE(S): Center for Advanced Science and Technology Incubation, Ltd., Japan  
 SOURCE: PCT Int. Appl., 47 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083566	A1	20011108	WO 2001-JP3717	20010427
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001052644	A5	20011112	AU 2001-52644	20010427
CA 2407290	A1	20021023	CA 2001-2407290	20010427
EP 1283218	A1	20030212	EP 2001-926042	20010427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 3475252	B2	20031208	JP 2001-580191	20010427
US 2003138398	A1	20030724	US 2002-258642	20021025
US 6828378	B2	20041207		
PRIORITY APPLN. INFO.:			JP 2000-129467	A 20000428
			WO 2001-JP3717	W 20010427
AB	Crosslinked polyrotaxanes are prepared by chemical bonding $\geq 2$ polyrotaxane mols. through cyclic mols. or rotators. The crosslinked			

polyrotaxanes are gelatinous substances, which have high absorbability, even expansion, elasticity, fracture resistance, and biodegradability. Thus, a polyrotaxane was prepared from 0.9 g diamine-terminated polyethylene glycol and 3.6 g  $\alpha$ - cyclodextrin, blocked with 2,4-dinitrofluorobenzene, and crosslinked with cyanuric chloride.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . expansion, elasticity, fracture resistance, and biodegradability. Thus, a polyrotaxane was prepared from 0.9 g diamine-terminated polyethylene glycol and 3.6 g  $\alpha$ - cyclodextrin, blocked with 2,4-dinitrofluorobenzene, and crosslinked with cyanuric chloride.

ST crosslinked polyrotaxane polyethylene glycol cyclodextrin; cyanuric chloride crosslinking agent polyrotaxane; nitrofluorobenzene blocking agent polyrotaxane

IT Polyoxalkylenes, preparation

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride; gelatinous crosslinked polyrotaxanes having absorbability and even expansion and elasticity and fracture resistance and biodegradability)

IT 70-34-8DP, 2,4-Dinitrofluorobenzene, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride 78-10-4DP, Tetraethoxysilane, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with tetraethoxysilane 107-15-3DP, Ethylenediamine, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride 108-77-0DP, Cyanuric chloride, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride 530-62-1DP, 1,1'-Carbonyldiimidazole, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with carbonyldiimidazole 584-84-9DP, 2,4-TDI, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with TDI 5400-70-4DP, Sodium 2,4,6-trinitrobenzenesulfonate, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with sodium trinitrobenzenesulfonate and crosslinked with tetraethoxysilane 10016-20-3DP,  $\alpha$ - Cyclodextrin, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride 25322-68-3DP, Polyethylene glycol, inclusion compds. of cyclodextrin with diamine-terminated polyethylene glycol, blocked with dinitrofluorobenzene and crosslinked with cyanuric chloride

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (gelatinous crosslinked polyrotaxanes having absorbability and even expansion and elasticity and fracture resistance and biodegradability)

L37 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:731489 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 136:38778

TITLE: Preparation of  $\beta$ -cyclodextrinized cellulosic fiber and deodorizing property

AUTHOR(S): Choi, Chang Nam; Hwang, Tae Yeon; Ko, Bong Kook; Kim, Ryong; Hong, Sung Hak; Kim, Sang Yool

CORPORATE SOURCE: Faculty of Applied Chemistry, Chonnam National University, Kwangju, 500-757, S. Korea

SOURCE: Polymer (Korea) (2001), 25(5), 635-641

CODEN: POLLDG; ISSN: 0379-153X

PUBLISHER: Polymer Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB  $\beta$ - Cyclodextrin/benzoic acid complex was prepared and reacted with cyanuric chloride. Identification of the complex formation and reaction was carried out by FT-IR, UV-Vis, and EDX. Deodorant fiber was obtained by treating cotton fiber with this complex. The deodorizing property was evaluated by the concentration changes of aqueous ammonia solution after flowing ammonia gas through the column filled with deodorant fiber prepared. The deodorizing property increased with an increase of concentration of  $\beta$ - cyclodextrin unit in the fiber. The deodorizing property of  $\beta$ - cyclodextrin/benzoic acid complex, was better than that of  $\beta$ - cyclodextrin. The result was attributed to the binding of ammonia gas caused by benzoic acid in the complex.

AB  $\beta$ - Cyclodextrin/benzoic acid complex was prepared and reacted with cyanuric chloride. Identification of the complex formation and reaction was carried out by FT-IR, UV-Vis, and EDX. Deodorant fiber was obtained. . . ammonia gas through the column filled with deodorant fiber prepared. The deodorizing property increased with an increase of concentration of  $\beta$ - cyclodextrin unit in the fiber. The deodorizing property of  $\beta$ - cyclodextrin/benzoic acid complex, was better than that of  $\beta$ - cyclodextrin. The result was attributed to the binding of ammonia gas caused by benzoic acid in the complex.

ST cyclodextrin benzoic acid deodorizing cotton fabric; chlorotriazinyl cyclodextrin cotton fabric treatment

IT Textiles  
(cotton; deodorizing performance of cyclodextrin-benzoic acid complex for)

IT Deodorization  
(deodorizing performance of cyclodextrin-benzoic acid complex for cotton fabrics)

IT 68419-51-2P,  $\beta$ - Cyclodextrin-benzoic acid complex (1:1)  
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(preparation and deodorizing performance for cotton fabrics)

IT 108-77-0DP, Cyanuric chloride, reaction products with cyclodextrin 7585-39-9DP,  $\beta$ - Cyclodextrin, reaction products with cyanuric chloride  
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(preparation and treatment of cotton fabrics with)

L37 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:301770 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 135:77458

TITLE: The polyrotaxane gel: a topological gel by figure-of-eight cross-links

AUTHOR(S): Okumura, Yasushi; Ito, Kohzo

CORPORATE SOURCE: Department of Applied Physics, Graduate School of Engineering, University of Tokyo, Tokyo, 113-8656, Japan

SOURCE: Advanced Materials (Weinheim, Germany) (2001), 13(7), 485-487  
 CODEN: ADVMEW; ISSN: 0935-9648

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The title polymer was prepared via crosslinking of poly(ethylene glycol)bisamine- $\alpha$ - cyclodextrin inclusion compound with cyanuric chloride in NaOH solns. Volume changes and NMR spectra of the gels were discussed.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The title polymer was prepared via crosslinking of poly(ethylene glycol)bisamine- $\alpha$ - cyclodextrin inclusion compound with cyanuric chloride in NaOH solns. Volume changes and NMR spectra of the gels were discussed.

ST polyoxyethylene cyclodextrin polyrotaxane gel

L37 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2001:247212 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 134:276456  
 TITLE: Methods for rapid PEG modification of viral vectors, compositions for enhanced gene transduction, compositions with enhanced physical stability, and uses therefor  
 INVENTOR(S): Croyle, Maria A.; Wilson, James M.  
 PATENT ASSIGNEE(S): The Trustees of the University of Pennsylvania, USA  
 SOURCE: PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023001	A2	20010405	WO 2000-US26449	20000927
WO 2001023001	A3	20020314		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2384814	A1	20010405	CA 2000-2384814	20000927
US 6399385	B1	20020604	US 2000-670277	20000927
EP 1218035	A2	20020703	EP 2000-971991	20000927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003523320	T	20030805	JP 2001-526210	20000927
PRIORITY APPLN. INFO.:			US 1999-156808P	P 19990929
			WO 2000-US26449	W 20000927

AB A rapid method for modifying a viral capsid or envelope protein with a polyethylene glycol (PEG) comprising reaction with tresyl chloride, succinimidyl succinate, or cyanuric chloride-activated monomethoxy-PEG is described. Also provided are methods of delivering a

mol. using PEG-modified adenoviruses and adeno-associated viruses of the invention. Compns. containing the PEG-modified viruses of the invention, are characterized by improved gene expression and reduced neutralizing antibody and CTL production. Also provided are viral compns. having enhanced phys. stability, in which the viruses are lyophilized in a formulation having a 1:1 ratio of sucrose and mannitol are provided.

AB . . . modifying a viral capsid or envelope protein with a polyethylene glycol (PEG) comprising reaction with tresyl chloride, succinimidyl succinate, or cyanuric chloride-activated monomethoxy-PEG is described. Also provided are methods of delivering a mol. using PEG-modified adenoviruses and adeno-associated viruses of the. . . .  
IT 57-50-1, Sucrose, biological studies 69-65-8, Mannitol 7585-39-9,  
 $\beta$ - Cyclodextrin  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(PEGylated viral vectors formulated with; methods for rapid PEG modification of viral vectors, compns. for enhanced gene transduction, compns. with enhanced phys. stability, and uses therefor)

L37 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:244198 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 135:47572  
TITLE: Rotaxane-encapsulation enhances the stability of an azo dye, in solution and when bonded to cellulose  
AUTHOR(S): Craig, Michael R.; Hutchings, Michael G.; Claridge, Tim D. W.; Anderson, Harry L.  
CORPORATE SOURCE: Department of Chemistry, Dyson Perrins Laboratory, University of Oxford, Oxford, OX1 3QY, UK  
SOURCE: Angewandte Chemie, International Edition (2001), 40(6), 1071-1074  
CODEN: ACIEF5; ISSN: 1433-7851  
PUBLISHER: Wiley-VCH Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 135:47572

AB A reactive dye inclusion compound (I) was prepared by condensing di-Na 7-[4-(methylamino)phenylazo]-2,4-naphthalenedisulfonate with cyanuric chloride and Na 3-aminobenzenesulfonate (1:1:1) in the presence of hexakis(2,3,6-tri-O-methyl)- $\alpha$ - cyclodextrin.  
Solns. of the bright yellow rotaxane I were more resistant to chemical bleaching than the uncomplexed dye and when bonded to mercerized cotton I also showed more photofading resistance.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A reactive dye inclusion compound (I) was prepared by condensing di-Na 7-[4-(methylamino)phenylazo]-2,4-naphthalenedisulfonate with cyanuric chloride and Na 3-aminobenzenesulfonate (1:1:1) in the presence of hexakis(2,3,6-tri-O-methyl)- $\alpha$ - cyclodextrin.  
Solns. of the bright yellow rotaxane I were more resistant to chemical bleaching than the uncomplexed dye and when bonded. . . .  
ST reactive azo dye prep cyclodextrin inclusion; cotton reactive dyeing rotaxane azo dye; bleaching photofading resistance rotaxane azo dye  
IT Reactive dyeing  
(of cotton with cyclodextrin-reactive azo dye inclusion compound)  
IT Rotaxanes  
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(preparation and fading resistance of cyclodextrin-reactive azo

dye inclusion compound)

IT 108-77-0, Cyanuric chloride 1126-34-7, Sodium  
 3-aminobenzenesulfonate 68715-56-0 344764-99-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dye starting material; preparation and fading resistance of  
cyclodextrin-reactive azo dye inclusion compound)

IT 344765-00-0P  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (yellow dye; preparation and cyclodextrin effect on fading  
 resistance of reactive azo dye)

IT 344764-98-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (yellow dye; preparation and fading resistance of cyclodextrin  
 -reactive azo dye inclusion compound)

L37 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:535437 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 133:106522

TITLE: Bulk formation of monolithic polysaccharide-based hydrogels

INVENTOR(S): Combes, Crystelle; Selmani, Amine; Chenite, Abdellatif; Chaput, Cyril

PATENT ASSIGNEE(S): Bio Syntech Ltd., Can.

SOURCE: Can. Pat. Appl., 44 pp.

CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2219399	A1	19990424	CA 1997-2219399	19971024
PRIORITY APPLN. INFO.:			CA 1997-2219399	19971024

AB The present invention relates to compns. and methods for building monolithic massive hydrogels made of ionic polysaccharides such as Chitin, Chitosan, Alginate, Pectin, Hyaluronic Acid by specific in situ uniform pH changes. Low- to high-mol. weight polybase polysaccharide are dissolved at room temperature in acidic aqueous solns. (2% w/v, pH 4-6). An amide such the urea

or ureid is added to the acidic polysaccharide solution and the mixture is homogenized and heated to 80-90° for initiating the hydrolysis of the amide and the in situ delivery of basic products. The resulting products basify uniformly and continuously the mixture allowing a pH-controlled gelation of the polybase (pH increase from 3-6 to 7-8). Optical signs of the polybase Chitosan gelation at 37° appear at pH 6.2-6.5. In a similar way, polyacid polysaccharides such as Alginate or Hyaluronan can be gelled from alkaline solns. by hydrolyzing ester or acid anhydride products such the maleic or acetic anhydride, or the beta-esters and liberating acids in situ. In both cases, the resulting materials are hydrogen-bond based monolithic massive hydrogels with good physico-mech. properties, are easily molded into complex shaped materials and present limited shrinkages. Polybase or polyacid-based monolithic hydrogels can be obtained with incorporated organic or inorg. components (second polymer or additive). Ionic polysaccharide may be applied to drug and cell delivery systems, implantable devices or encapsulating materials.

IT 50-70-4D, Glucitol, esters 56-81-5, Glycerine, uses 67-68-5, DMSO,

uses 69-65-8D, Mannitol, derivs. 7440-32-6D, Titanium, compds., uses 7631-86-9, Silica, uses 9002-89-5, Poly(vinyl alcohol) 9003-39-8, Povidone 9004-54-0, Dextran, uses 9004-62-0, Hydroxyethyl cellulose 9004-67-5, Methyl cellulose 12441-09-7D, Sorbitan, esters 12619-70-4, Cyclodextrin 25322-68-3, Polyethylene oxide 25322-69-4, Polypropylene glycol  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (gelation co-component; bulk formation of monolithic polysaccharide-based hydrogels)

IT 57-13-6, Urea, uses 62-56-6, Thiourea, uses 96-48-0, Butyrolactone 108-24-7, Acetic anhydride 108-30-5, Succinic anhydride, uses 108-31-6, Maleic anhydride, uses 108-80-5, Cyanuric acid 113-00-8, Guanidine 463-77-4, Carbamic acid, uses 630-10-4, Selenourea  
 RL: CAT (Catalyst use); USES (Uses)  
 (in-situ gelation catalysts; bulk formation of monolithic polysaccharide-based hydrogels)

L37 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1999:665758 CAPLUS <<LOGINID::20080225>>  
 DOCUMENT NUMBER: 131:259012  
 TITLE: Ink-jet printing ink compositions and coating compositions for recording sheets  
 INVENTOR(S): Lavery, Aidan Joseph; Watkinson, Janette  
 PATENT ASSIGNEE(S): Zeneca Limited, UK; ZSC Specialty Chemicals UK Limited; Avecia Limited  
 SOURCE: Brit. UK Pat. Appl., 26 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2332438	A	19990623	GB 1998-27475	19981215
GB 2332438	B	20030319		
US 6231653	B1	20010515	US 1998-210935	19981215
PRIORITY APPLN. INFO.:			GB 1997-26814	A 19971219
AB	The ink with improved light-fastness of prints comprises a dye (e.g., C.I. Direct Blue 199), a sugar (e.g., D-glucose), a compound selected from phosphoric acid and a carboxylic acid or their salts (e.g., ascorbic acid), a solvent (e.g. Butyl Carbitol, and glycerol), and optionally a pH buffer. The recording sheet comprises a substrate coated or impregnated on ≥1 surface with a coating composition containing a sugar, a compound selected from phosphoric acid and a carboxylic acid or their salts, and optionally a binder.			
IT	50-70-4, Sorbitol, uses 50-81-7, L-Ascorbic acid, uses 50-99-7, D-Glucose, uses 57-48-7, Fructose, uses 57-50-1, Sucrose, uses 64-19-7, Acetic acid, uses 69-65-8, Mannitol 77-92-9, uses 88-99-3, Phthalic acid, uses 97-05-2, Sulphosalicylic acid 100-21-0, 1,4-Benzene dicarboxylic acid, uses 109-52-4, Pentanoic acid, uses 110-15-6, Butanedioic acid, uses 141-82-2, Malonic acid, uses 528-50-7, Cellobiose 4408-78-0, Phosphonoacetic acid 7585-39-9, $\beta$ - <u>Cyclodextrin</u> 10016-20-3, $\alpha$ - <u>Cyclodextrin</u> 17465-86-0, $\gamma$ - <u>Cyclodextrin</u>			
	RL: TEM (Technical or engineered material use); USES (Uses) (ink-jet printing ink compns. and coating compns. for recording sheets)			
IT	90-51-7, 2-Amino-8-naphthol-6-sulfonic acid 108-77-0, <u>Cyanuric</u> chloride 109-76-2, 1,3-Diaminopropane 6973-05-3			

RL: RCT (Reactant); RACT (Reactant or reagent)  
(starting material; preparation of dyes for ink-jet printing ink compns.)

L37 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1997:93922 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 126:105422  
TITLE: Textiles or leather finished with cyclodextrin derivatives containing a N heterocycle, and their preparation  
INVENTOR(S): Reuscher, Helmut; Hirsenkorn, Rolf  
PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie GmbH, Germany  
SOURCE: Ger. Offen., 20 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19520967	A1	19961212	DE 1995-19520967	19950608
PRIORITY APPLN. INFO.:			DE 1995-19520967	19950608

OTHER SOURCE(S): MARPAT 126:105422

AB The heterocycles are the typical reactive groups found in fiber-reactive dyes, such as halotriazines and halopyrimidines. They bond fast to the fabric surface and permit the cyclodextrins to serve as sites for binding conventional additives such as biocides, perfumes, etc., in a sustained-release mode. Thus,  $\beta$ - cyclodextrin was condensed with cyanuric chloride in an aqueous medium at 0-5° in the presence of NaOH to give a 4-chloro-6-hydroxy-s-triazin-2-yl- $\beta$ -cyclodextrin Na salt with degree of substitution of active Cl 0.4, which was applied to cotton by conventional reactive dyeing techniques.

TI Textiles or leather finished with cyclodextrin derivatives containing a N heterocycle, and their preparation

AB . . . groups found in fiber-reactive dyes, such as halotriazines and halopyrimidines. They bond fast to the fabric surface and permit the cyclodextrins to serve as sites for binding conventional additives such as biocides, perfumes, etc., in a sustained-release mode. Thus,  $\beta$ - cyclodextrin was condensed with cyanuric chloride in an aqueous medium at 0-5° in the presence of NaOH to give a 4-chloro-6-hydroxy-s-triazin-2-yl- $\beta$ -cyclodextrin Na salt with degree of substitution of active Cl 0.4, which was applied to cotton by conventional reactive dyeing techniques.

ST cyclodextrin finishing textile leather

IT Textiles  
(cotton; finishing with cyclodextrin derivs. containing a N heterocycle)

IT Filter paper  
(reaction with cyclodextrin derivs. containing a N heterocycle)

IT Leather  
(textiles or leather finished with cyclodextrin derivs. containing a N heterocycle)

IT 50-23-7, Hydrocortisone 185915-25-7, Frescolat ML  
RL: RCT (Reactant); RACT (Reactant or reagent)

(complexation with cyclodextrin-finished cotton fabrics)

IT 9002-89-5DP, Poly(vinyl alcohol), reaction products with cyclodextrin chlorotriazinyl derivs. 9004-34-6DP, Cellulose, reaction products with cyclodextrin chlorotriazinyl derivs.,

preparation 9005-25-8DP, Starch, reaction products with cyclodextrin chlorotriazinyl derivs., preparation 30551-89-4DP, Poly(allylamine), reaction products with cyclodextrin chlorotriazinyl derivs.

RL: IMF (Industrial manufacture); PREP (Preparation)  
(textiles or leather finished with cyclodextrin derivs.  
containing a N heterocycle)

IT 108-77-0DP, Cyanuric chloride, reaction products with cyclodextrins 7585-39-9DP,  $\beta$ - Cyclodextrin, hydroxypropyl ether derivs., reaction products with chlorotriazines

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(textiles or leather finished with cyclodextrin derivs.  
containing a N heterocycle)

IT 75-04-7DP, Ethylamine, reaction products with cyclodextrin chlorotriazinyl derivs. 109-89-7DP, Diethylamine, reaction products with cyclodextrin chlorotriazinyl derivs. 121-44-8DP, reaction products with cyclodextrin chlorotriazinyl derivs.

1780-40-1DP, 2,4,5,6-Tetrachloropyrimidine, reaction products with cyclodextrins 2736-18-7DP, 2,4-Dichloro-6-hydroxy-s-triazine sodium salt, reaction products with cyclodextrins

17465-86-0DP,  $\gamma$ - Cyclodextrin, reaction products with chlorotriazines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(textiles or leather finished with cyclodextrin derivs.  
containing a N heterocycle)

L37 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:90363 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 126:105681

TITLE: Polymers modified with cyclodextrin derivatives containing N heterocycles, and their use

INVENTOR(S): Hirsenkorn, Rolf; Reuscher, Helmut; Haas, Wolfgang

PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie G.m.b.H, Germany

SOURCE: Ger. Offen., 30 pp.

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19520989	A1	19961212	DE 1995-19520989	19950608
PRIORITY APPLN. INFO.:			DE 1995-19520989	19950608

OTHER SOURCE(S): MARPAT 126:105681

AB The heterocycles are the typical fiber-reactive groups found in reactive dyes, e.g., halotriazines and halopyrimidines, and they permit the attachment of cyclodextrin complex-forming functionality to other polymers. Aqueous dispersions of the modified polymers can serve as binders for paper, coatings, and cement.

TI Polymers modified with cyclodextrin derivatives containing N heterocycles, and their use

AB . . . heterocycles are the typical fiber-reactive groups found in reactive dyes, e.g., halotriazines and halopyrimidines, and they permit the attachment of cyclodextrin complex-forming functionality to other polymers. Aqueous dispersions of the modified polymers can serve as

binders for paper, coatings, and cement.

ST polymer modification cyclodextrin deriv; paper binder  
cyclodextrin modified polymer; coating cyclodextrin  
modified polymer; cement binder cyclodextrin modified polymer

IT Adhesives  
(contact; polymers modified with cyclodextrin derivs. containing N heterocycles)

IT Textiles  
(cotton; polymers modified with cyclodextrin derivs. containing N heterocycles)

IT Polymerization  
(emulsion; in presence of cyclodextrin derivs. containing reactive N heterocycles)

IT Filter paper  
(polymers modified with cyclodextrin derivs. containing N heterocycles)

IT Concrete  
Mortar  
Paper  
Spackling compound  
(polymers modified with cyclodextrin derivs. containing N heterocycles as binders for)

IT Coating materials  
Putty  
(polymers modified with cyclodextrin derivs. containing N heterocycles for)

IT 50-23-7, Hydrocortisone  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(complex formation with polymers modified with cyclodextrin derivs. containing N heterocycles)

IT 9002-89-5DP, Poly(vinyl alcohol), reaction products with cyclodextrin chlorohydroxytriazinyl ether 9002-98-6DP, Polyethylenimine, reaction products with cyclodextrin chlorohydroxytriazinyl ether 9004-34-6DP, Cellulose, reaction products with cyclodextrin chlorohydroxytriazinyl ether, preparation 9005-25-8DP, Starch, reaction products with cyclodextrin chlorohydroxytriazinyl ether, preparation 9012-76-4DP, Chitosan, reaction products with cyclodextrin chlorohydroxytriazinyl ether 30551-89-4DP, Poly(allylamine), reaction products with cyclodextrin chlorohydroxytriazinyl ether 32131-17-2DP, Nylon 66, reaction products with cyclodextrin chlorohydroxytriazinyl ether  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(polymers modified with cyclodextrin derivs. containing N heterocycles)

IT 108-77-0DP, Cyanuric chloride, reaction products with cyclodextrins 7585-39-9DP,  $\beta$ - Cyclodextrin, hydroxypropyl ether derivs., reaction products with cyanuric chloride or tetrachloropyrimidine 7585-39-9DP,  $\beta$ - Cyclodextrin, reaction products with cyanuric chloride  
RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polymers modified with cyclodextrin derivs. containing N heterocycles)

IT 75-04-7DP, Ethylamine, reaction products with cyclodextrin chlorohydroxytriazinyl ether 109-89-7DP, Diethylamine, reaction products with cyclodextrin chlorohydroxytriazinyl ether 121-44-8DP, Triethylamine, reaction products with cyclodextrin

chlorohydroxytriazinyl ether 1780-40-1DP, 2,4,5,6-Tetrachloropyrimidine, reaction products with cyclodextrins 2736-18-7DP, 2,4-Dichloro-6-hydroxy-1,3,5-triazine sodium salt, reaction products with cyclodextrins 17465-86-0DP,  $\gamma$ - Cyclodextrin, reaction products with cyanuric chloride 185846-49-5P, Cyanuric chloride- $\beta$ - cyclodextrin copolymer

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(polymers modified with cyclodextrin derivs. containing N heterocycles)

IT 24937-78-8P, Ethylene-vinyl acetate copolymer 25037-33-6P, Acrylamide-butyl acrylate-styrene copolymer 33773-82-9P, Acrylamide-acrylic acid-sodium vinylsulfonate copolymer 185846-51-9P, Acrylic acid-ethylene-2-hydroxyethyl acrylate-vinyl acetate-vinyl laurate copolymer  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation in presence of cyclodextrin derivs. containing reactive N heterocycles)

IT 185846-50-8P, Acrylic acid-2-ethylhexyl acrylate-methyl methacrylate-N-methylolacrylamide-vinyl acetate-vinyl laurate copolymer  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(preparation in presence of polymer modified with cyclodextrin derivs. containing reactive N heterocycles)

L37 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:259492 CAPLUS <<LOGINID::20080225>>

DOCUMENT NUMBER: 124:292791

TITLE: Cyclodextrin adducts with heterocyclic compounds having at least one nitrogen, their preparation and use

INVENTOR(S): Reuscher, Helmut; Hirsenkorn, Rolf; Haas, Wolfgang

PATENT ASSIGNEE(S): Consortium fuer Elektrochemische Industrie GmbH, Germany

SOURCE: Eur. Pat. Appl., 47 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 697415	A1	19960221	EP 1995-112935	19950817
EP 697415	B1	20011121		
R: BE, DE, FR, GB, IT, NL				
DE 4429229	A1	19960222	DE 1994-4429229	19940818
US 5728823	A	19980317	US 1995-512653	19950808
JP 08067702	A	19960312	JP 1995-208869	19950816
PRIORITY APPLN. INFO.:			DE 1994-4429229	A 19940818

OTHER SOURCE(S): MARPAT 124:292791

AB Derivs. of cyclodextrin and the title compds. having an electrophilic center are manufactured and are useful as selective separation agents

in chromatog. and can be covalently bonded to membranes, paper, textiles, and leather. These derivs. are also useful as dispersant in emulsion polymerization. Thus, reaction of 108 g  $\beta$ - cyclodextrin with 118.8 g cyanuric chloride in aqueous base at pH > 12 and 0-5° gave a product with Cl substitution degree 0.4, that exhibited reactivity with

cotton fabric.

TI Cyclodextrin adducts with heterocyclic compounds having at least one nitrogen, their preparation and use

AB Derivs. of cyclodextrin and the title compds. having an electrophilic center are manufactured and are useful as selective separation agents in chromatog. and. . . membranes, paper, textiles, and leather. These derivs. are also useful as dispersant in emulsion polymerization Thus, reaction of 108 g  $\beta$ - cyclodextrin with 118.8 g cyanuric chloride in aqueous base at pH > 12 and 0-5° gave a product with Cl substitution degree 0.4, that exhibited. . .

ST cyclodextrin heterocyclic compd adduct manuf; emulsion polymn dispersant cyclodextrin deriv; leather cyclodextrin deriv bonded; cotton textile cyclodextrin deriv bonded; paper cyclodextrin deriv bonded; chromatog sepn agent cyclodextrin deriv; cyanuric chloride cyclodextrin adduct manuf

IT Perfumes  
(Frescolat ML; cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen for complexing with perfumes)

IT Paper  
(cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen bonded to paper)

IT Adhesives  
(cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen for adhesives)

IT Dispersing agents  
(cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen for dispersants in emulsion polymn)

IT Mortar  
(cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen for dispersants in mortars)

IT Textiles  
(cotton, cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen bonded to cotton textiles)

IT Coating materials  
(dispersion, paints, water-thinned, cyclodextrin adducts with heterocyclic compds. having electrophilic centers and at least one nitrogen for dispersants in dispersion paints)

IT 75-04-7DP, Ethylamine, reaction products with chlorotriazinyl cyclodextrin 108-77-0DP, Cyanuric chloride, reaction products with cyclodextrin 109-89-7DP, Diethylamine, reaction products with chlorotriazinyl cyclodextrin 121-44-8DP, Triethylamine, reaction products with chlorotriazinyl cyclodextrin 868-77-9DP, 2-Hydroxyethyl methacrylate, reaction products with chlorotriazinyl cyclodextrin, polymers 1780-40-1DP, 2,4,5,6-Tetrachloropyrimidine, reaction products with hydroxypropyl cyclodextrin 2736-18-7DP, 2,4-Dichloro-6-hydroxy-1,3,5-triazine sodium salt, reaction products with cyclodextrin 7585-39-9DP,  $\beta$ - Cyclodextrin, reaction products with heterocyclic compds. 9002-89-5DP, Polyvinyl alcohol, reaction products with chlorotriazinyl cyclodextrin 9002-98-6DP, Polyethylenimine, reaction products with chlorotriazinyl cyclodextrin 9004-34-6DP, Cellulose, reaction products with chlorotriazinyl cyclodextrin

9005-25-8DP, Starch, reaction products with chlorotriazinyl  
cyclodextrin 9012-76-4DP, Chitosan, reaction products with  
chlorotriazinyl cyclodextrin 17465-86-0DP,  $\gamma$ -  
Cyclodextrin, reaction products with cyanuric chloride  
30551-89-4DP, Polyallylamine, reaction products with chlorotriazinyl  
cyclodextrin 32131-17-2DP, Nylon 66, reaction products with  
chlorotriazinyl cyclodextrin  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(cyclodextrin adducts with heterocyclic compds. having  
electrophilic centers and at least one nitrogen)  
IT 50-23-7, Hydrocortisone  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclodextrin adducts with heterocyclic compds. having  
electrophilic centers and at least one nitrogen for complexing with  
hydrocortisone)  
IT 24937-78-8P, Ethylene-vinyl acetate copolymer 25037-33-6P,  
Acrylamide-butyl acrylate-styrene copolymer 175873-71-9P,  
Acrylamide-acrylic acid-2-ethylhexyl acrylate-2-hydroxyethyl  
acrylate-methyl methacrylate-vinyl acetate-vinyl laurate copolymer  
175873-72-0P, Acrylamide-acrylic acid-ethylene-2-hydroxyethyl  
acrylate-vinyl acetate-vinyl laurate copolymer  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(cyclodextrin adducts with heterocyclic compds. having  
electrophilic centers and at least one nitrogen for dispersants in  
emulsion polymn)

L37 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:186806 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 120:186806  
TITLE: Synthesis and use of carbohydrate-binding  
polymer-lectin conjugates  
INVENTOR(S): Allen, Howard J., Jr.  
PATENT ASSIGNEE(S): Health Research Inc., USA  
SOURCE: U.S., 12 pp. Cont.-in-part of U.S. Ser. No. 690,641,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5284934	A	19940208	US 1992-940685	19920904
PRIORITY APPLN. INFO.:			US 1991-690641	B2 19910424

AB A carbohydrate-binding lectin-polymer conjugate is prepared by coupling the lectin via amino groups of the lectin to a water-soluble polymer (PEG, polypropylene glycol, cyclodextrin) in the presence of a carbohydrate for the lectin; removing the carbohydrate from the conjugate by dialysis or gel filtration; and purifying the polymer-lectin conjugate having carbohydrate-binding activity. The conjugate is useful as a therapeutic or diagnostic agent. *Ricinus communis* agglutinin I (RCAI) was coupled to PEG by activating the polymer with coupling agent 1,1-carbonyldimidazole. The polymer-lectin conjugate is biol. active, biocompatible and is expected to be substantially nonimmunogenic.

AB . . . conjugate is prepared by coupling the lectin via amino groups of the lectin to a water-soluble polymer (PEG, polypropylene glycol, cyclodextrin) in the presence of a carbohydrate for the lectin; removing the carbohydrate from the conjugate by dialysis or gel

filtration; . . .

IT 108-77-0, Cyanuric chloride 530-62-1, 1,1'-Carbonyldiimidazole  
RL: ANST (Analytical study)  
(as coupling agent in preparation of carbohydrate-binding lectin-polymer  
conjugate for diagnostic and therapeutic agents)

IT 11028-71-0DP, Con A, conjugates with polymer 12619-70-4DP,  
Cyclodextrin, conjugates with lectin 25322-68-3DP, Polyethylene  
glycol, conjugates with lectin 25322-69-4DP, Polypropylene glycol,  
conjugates with lectin  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of carbohydrate-binding, for diagnostic and therapeutic agents)

L37 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:18040 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 118:18040  
TITLE: Supermacromolecular assembly and biological functions  
AUTHOR(S): Imanishi, Yukio  
CORPORATE SOURCE: Fac. Eng., Kyoto Univ., Kyoto, 606, Japan  
SOURCE: Kagaku (Kyoto, Japan) (1992), 47(11), 798-9  
CODEN: KAKYAU; ISSN: 0451-1964  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: Japanese

AB A review, with 14 refs., on the structure and function of natural and  
artificial supermacromol. assemblies, such as ribozymes, ribosomes, mol.  
shuttles composed of cyclodextrin, and H-bond networks composed  
of cyanuric acid and melamine.

AB . . . refs., on the structure and function of natural and artificial  
supermacromol. assemblies, such as ribozymes, ribosomes, mol. shuttles  
composed of cyclodextrin, and H-bond networks composed of  
cyanuric acid and melamine.

L37 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:171420 CAPLUS <>LOGINID::20080225>>  
DOCUMENT NUMBER: 112:171420  
TITLE: Chemically bonded cyclodextrin silica  
stationary phases for liquid chromatographic  
separation of some disubstituted benzene derivatives  
AUTHOR(S): Lin, Ching Erh; Chen, Cheng Hsin; Lin, Chen Hsing;  
Yang, Mei Hui; Jiang, Jyh Chiang  
CORPORATE SOURCE: Dep. Chem., Natl. Taiwan Univ., Taipei, Taiwan  
SOURCE: Journal of Chromatographic Science (1989), 27(11),  
665-71  
CODEN: JCHSBZ; ISSN: 0021-9665  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Chemical bonded  $\beta$ - cyclodextrin stationary phases for  
high-performance liquid chromatog. are prepared by immobilizing derivs. of  
 $\beta$ -cyclohextrin with a moiety containing the s-triazine ring onto silica  
gels that are modified with different amino types of silane coupling  
agents. The retention behavior of some disubstituted benzene derivs. is  
examined. Results show that effective and efficient separation is achieved.  
Comparative studies of the retention behavior of disubstituted benzene  
derivs. are made for  $\beta$ - cyclodextrin bonded phases with and  
without the moiety of the s-triazine ring. The results indicate that  
formation of the inclusion complex plays a dominant role in the separation  
mechanism. However, selectivity can be significantly enhanced by the  
interaction between the s-triazine ring of the bonded phase and the eluted  
disubstituted benzene derivs.

TI Chemically bonded cyclodextrin silica stationary phases for

liquid chromatographic separation of some disubstituted benzene derivatives

AB Chemical bonded  $\beta$ - cyclodextrin stationary phases for high-performance liquid chromatog. are prepared by immobilizing derivs. of  $\beta$ -cyclohexatin with a moiety containing the s-triazine ring. . . that effective and efficient separation is achieved. Comparative studies of the retention behavior of disubstituted benzene derivs. are made for  $\beta$ - cyclodextrin bonded phases with and without the moiety of the s-triazine ring. The results indicate that formation of the inclusion complex. . .

ST cyclodextrin bonded silica gel stationary phase; liq chromatog reversed stationary phase; triazine cyclodextrin aminopropylated silica gel; benzene deriv disubstituted liq chromatog; arom compd liq chromatog

IT Aromatic compounds  
Aromatic hydrocarbons, analysis  
Phenols, analysis  
RL: ANST (Analytical study); PROC (Process)  
(separation of, by liquid chromatog. on cyclodextrin-bonded phases)

IT Silica gel, compounds  
RL: ANST (Analytical study)  
(aminopropylated, reaction products, cyclodextrin bonded, as liquid chromatog. stationary phases)

IT Isomerism and Isomers  
(positional, separation of, by liquid chromatog. on cyclodextrin-bonded phases)

IT Chromatography, column and liquid  
(reversed-phase, stationary phases, cyclodextrin-bonded, to aminopropylated silica gel)

IT 290-87-9D, 1,3,5-Triazine, derivs., cyclodextrin-bonded  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(reaction of, with aminopropylated silica gel, for preparation of liquid chromatog. stationary phases)

IT 7585-39-9,  $\beta$ - Cyclodextrin  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(reaction of, with cyanuric chloride, for preparation of silica bonded liquid chromatog. stationary phases)

IT 108-77-0, Cyanuric chloride  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(reaction of, with cyclodextrin, for preparation of silica bonded liquid chromatog. stationary phases)

IT 919-30-2, 3-Aminopropyltriethoxysilane 1760-24-3  
RL: RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(reaction of, with silica gel, for preparation of cyclodextrin-bonded liquid chromatog. stationary phases)

IT 71-43-2D, Benzene, derivs., di- 88-72-2, o-Nitrotoluene 88-75-5, 2-Nitrophenol 90-00-6, 2-Ethylphenol 95-47-6, o-Xylene, analysis 95-48-7, analysis 95-57-8, 2-Chlorophenol 99-08-1, m-Nitrotoluene 99-99-0, p-Nitrotoluene 100-02-7, 4-Nitrophenol, analysis 106-42-3, p-Xylene, analysis 106-44-5, analysis 106-48-9, 4-Chlorophenol 108-38-3, m-Xylene, analysis 108-39-4, analysis 108-43-0, 3-Chlorophenol 123-07-9, 4-Ethylphenol 554-84-7 620-17-7, 3-Ethylphenol  
RL: ANST (Analytical study); PROC (Process)  
(separation of, by liquid chromatog. on cyclodextrin-bonded phases)

TITLE: Isolation and purification of cyclodextrins  
 by clathration chromatography  
 INVENTOR(S): Korpela, Timo; Laakso, Simo; Makela, Mauri  
 PATENT ASSIGNEE(S): Osakeyhtio Alko AB, Finland  
 SOURCE: Eur. Pat. Appl., 18 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 268997	A1	19880601	EP 1987-117067	19871119
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
FI 8704900	A	19880520	FI 1987-4900	19871105
FI 87464	B	19920930		
FI 87464	C	19930111		
DK 8705896	A	19880520	DK 1987-5896	19871110
HU 47604	A2	19890328	HU 1987-5124	19871118
HU 206731	B	19921228		
JP 63137901	A	19880609	JP 1987-290761	19871119
US 4897472	A	19900130	US 1988-195460	19880512
PRIORITY APPLN. INFO.:			US 1986-932721	A 19861119

AB Pure cyclodextrins (I) or their chemical derivs. are prepared by treating crude or partially purified mixts. of I (e.g. prepared enzymically from starch or related compds.) with special adsorbents containing covalently bonded ligands able to form inclusion complexes with the desired I, removing undesired material, and eluting I. Passing 1 L q. solution of linear sugars 140,  $\alpha$ -I 20,  $\beta$ -I 21, and  $\gamma$ -I 8 g over a column of 170 mL 1,8-naphthalenedicarboximide derivative of aminated Biogel P6 (equilibrated with 200 mL 25mM NaHCO<sub>3</sub>) and elution at 80 mL/h gave an 80-85% recovery of  $\gamma$ -I with purity 100  $\pm$  2%.

TI Isolation and purification of cyclodextrins by clathration chromatography

AB Pure cyclodextrins (I) or their chemical derivs. are prepared by treating crude or partially purified mixts. of I (e.g. prepared enzymically from. . .

ST cyclodextrin purifn clathration chromatog; naphthalenedicarboximide deriv cyclodextrin purifn; Biogel imide deriv cyclodextrin purifn

IT Chromatography, column and liquid  
(clathration, cyclodextrin purification by)

IT Inclusion reaction  
(clathration, in chromatog. purification of cyclodextrins)

IT 65-85-0D, Benzoic acid, reaction products with aminated Biogel P6 108-77-0D, Cyanuric chloride, reaction products with cellulose and amines 111-26-2D, Hexylamine, reaction products with cyanuric chloride and cellulose 518-05-8D, reaction products with aminated Biogel P6 9004-34-6D, reaction products with cyanuric chloride and hexylamine 53321-14-5D, Biogel P6, amide and imide derivs.

RL: USES (Uses)

(cyclodextrin purification by clathration chromatog. in presence of)

IT 7585-39-9P,  $\beta$ - Cyclodextrin 10016-20-3P,  $\alpha$ - Cyclodextrin 17465-86-0P,  $\gamma$ - Cyclodextrin 51166-71-3P, Heptakis(2,6-Di-O-methyl) $\beta$ - cyclodextrin 55216-11-0P, Heptakis(2,3,6-tri-O-methyl) $\beta$ - cyclodextrin

RL: PUR (Purification or recovery); PREP (Preparation)  
(purification of, by clathration chromatog.)

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ACCESSION NUMBER: 1983:576180 CAPLUS <<LOGINID::20080225>>  
DOCUMENT NUMBER: 99:176180  
ORIGINAL REFERENCE NO.: 99:27053a,27056a  
TITLE: Template synthesis from starch as an approach to tailor-made "cyclodextrin"  
AUTHOR(S): Shinkai, Seiji; Yamada, Mitsukuni; Sone, Takaaki;  
Manabe, Osamu  
CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852, Japan  
SOURCE: Tetrahedron Letters (1983), 24(33), 3501-4  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The crosslink of water-soluble starch with cyanuric chloride in a two phase system gave a template resin with memory for its origin. This is a novel approach to tailor-made "cyclodextrin".  
TI Template synthesis from starch as an approach to tailor-made "cyclodextrin"  
AB The crosslink of water-soluble starch with cyanuric chloride in a two phase system gave a template resin with memory for its origin. This is a novel approach to tailor-made "cyclodextrin".  
ST cyclodextrin; starch cyanuric chloride template synthesis  
IT Oligosaccharides  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(tailor-made cyclodextrin)  
IT 12619-70-4P  
RL: PREP (Preparation)  
(template synthesis from starch and cyanuric chloride)  
IT 108-77-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(template synthesis from starch and, approach to tailor-made cyclodextrin)  
IT 9005-25-8, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(template synthesis, of cyanuric chloride and, approach to tailor-made cyclodextrin)